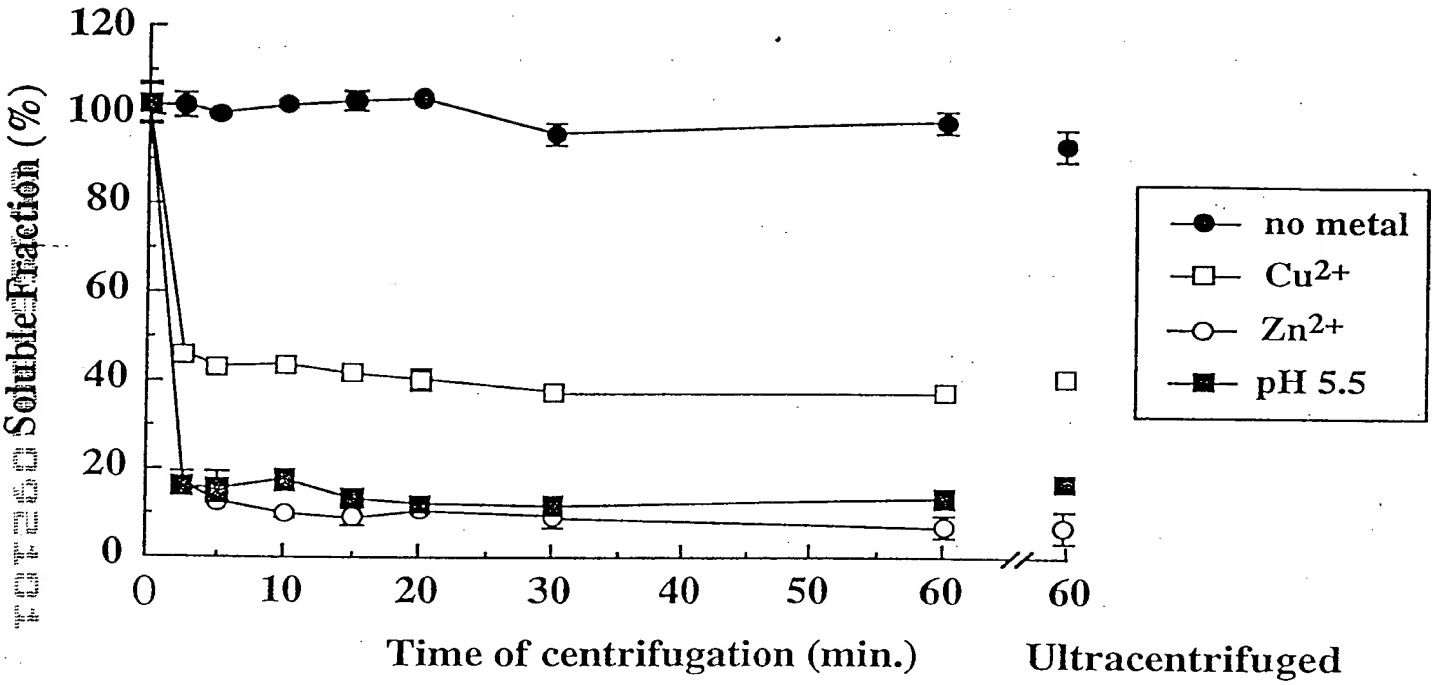

Soluble Fraction (%)
120
100
80
60
40
20
0
0
10
20
30
40
50
60
60
Time of centrifugation (min.)
Ultracentrifuged
no metal
Cu2+
Zn2+
pH 5.5

Fig 1

TOP260 "0869560

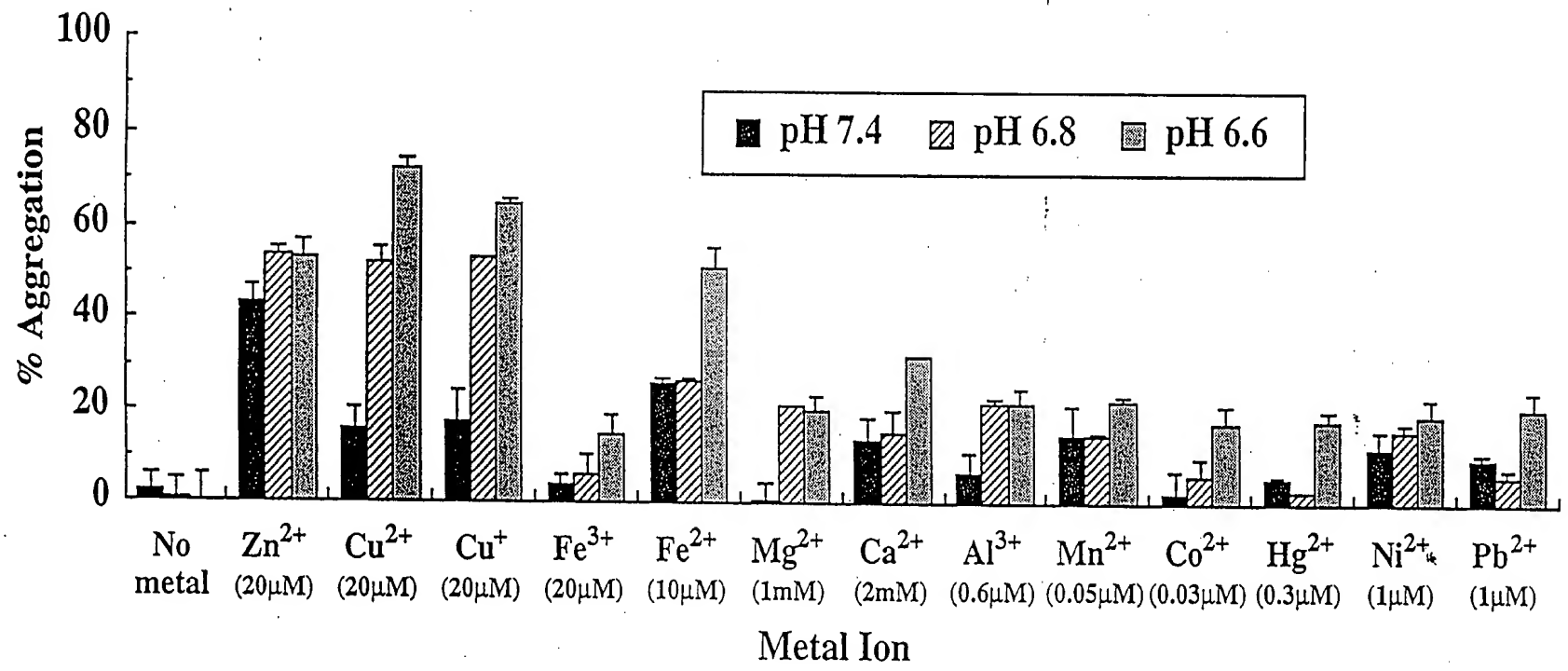


Fig 2A

T0T260 0869560

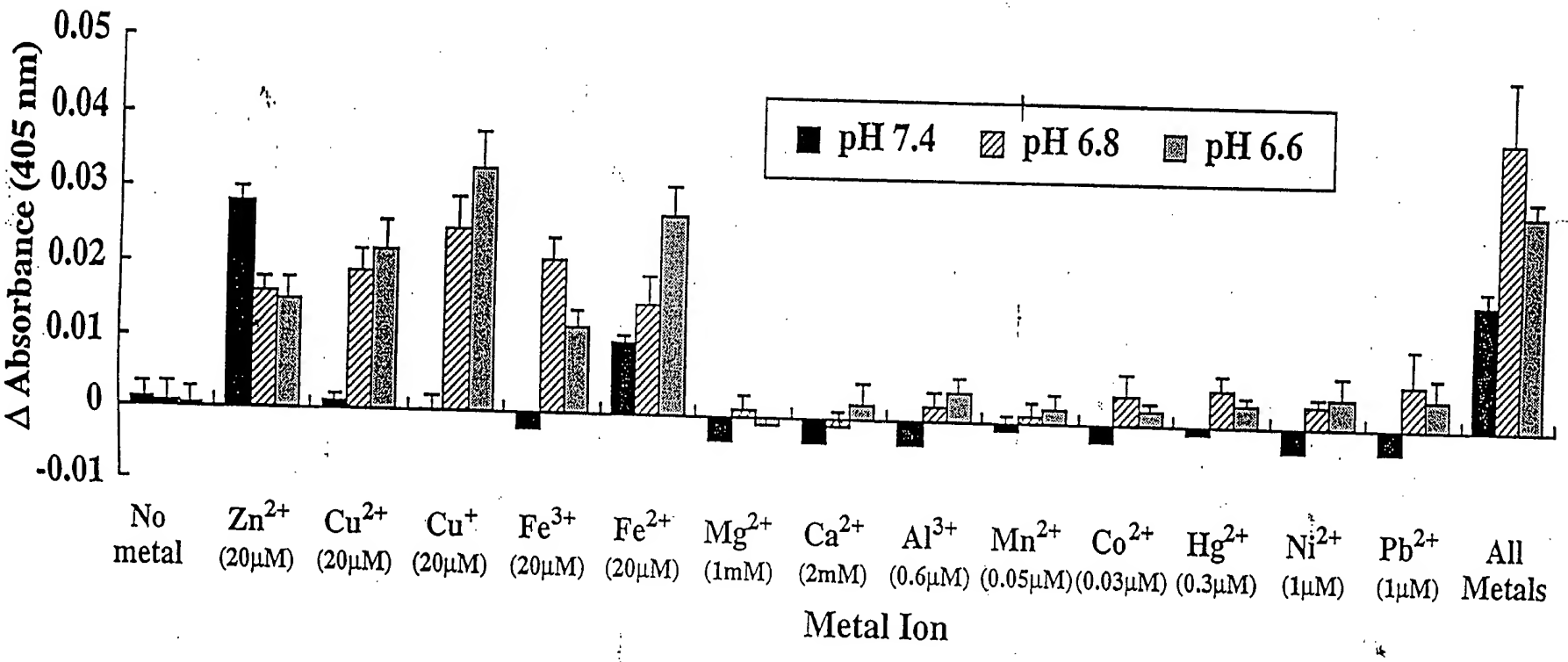


Fig. 2B

TOT260 0808660

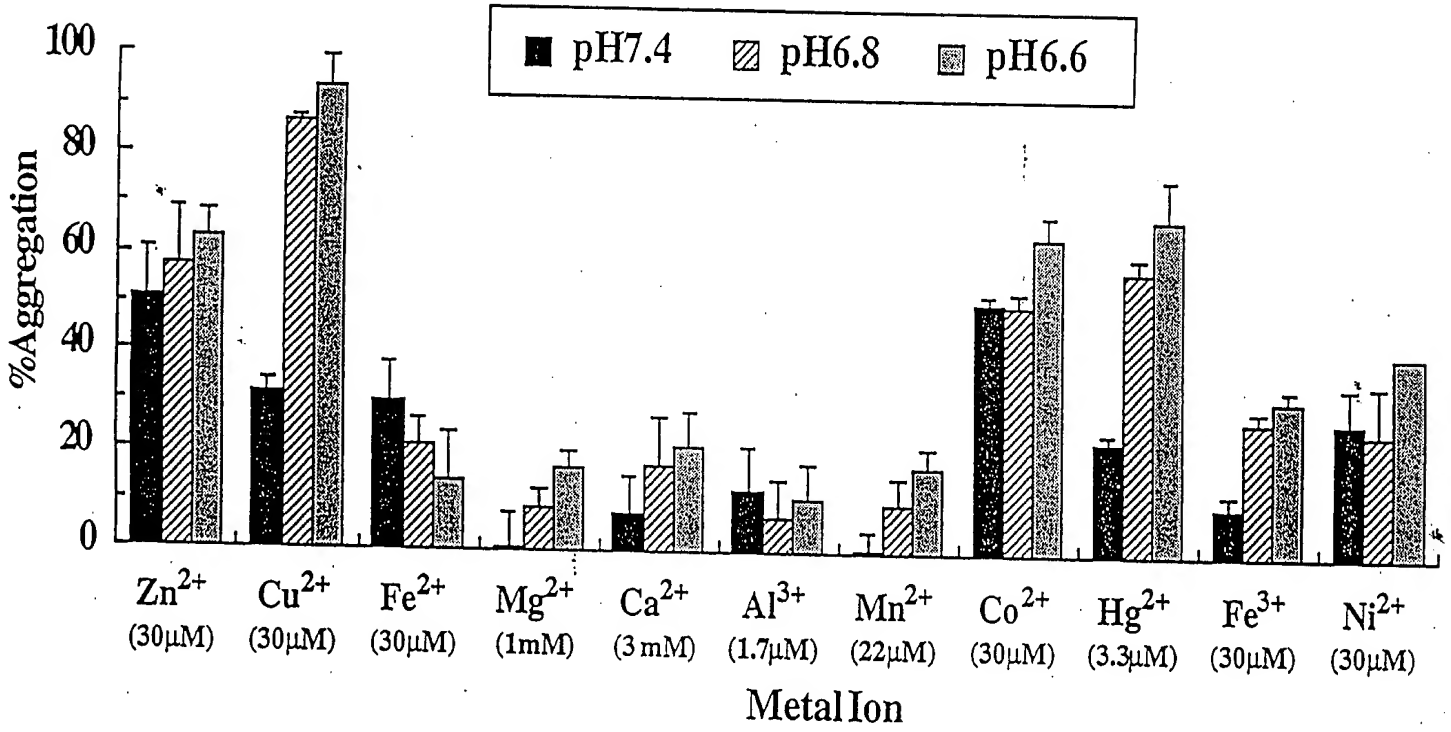


Fig 2C

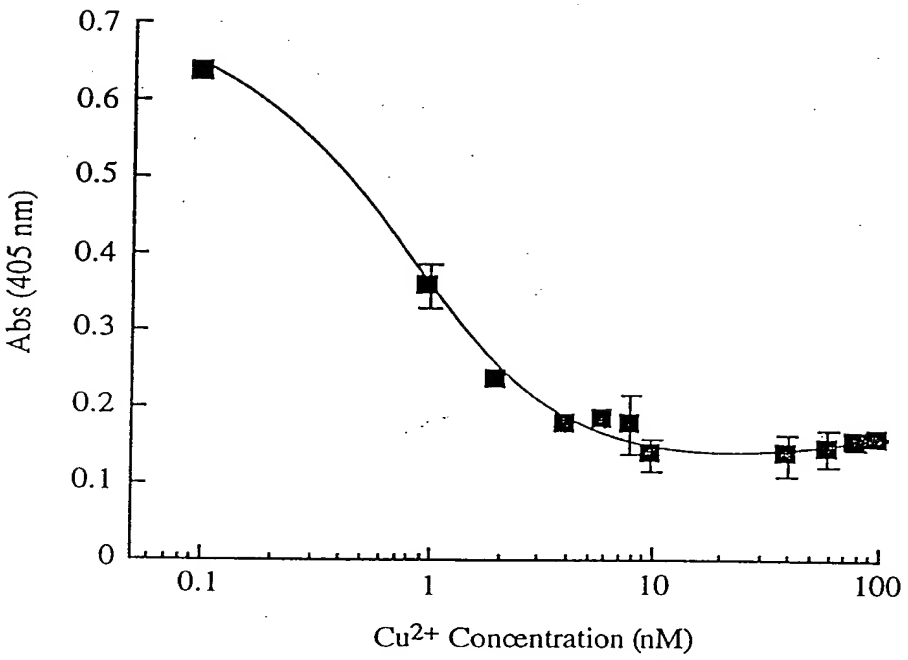


Fig. 3

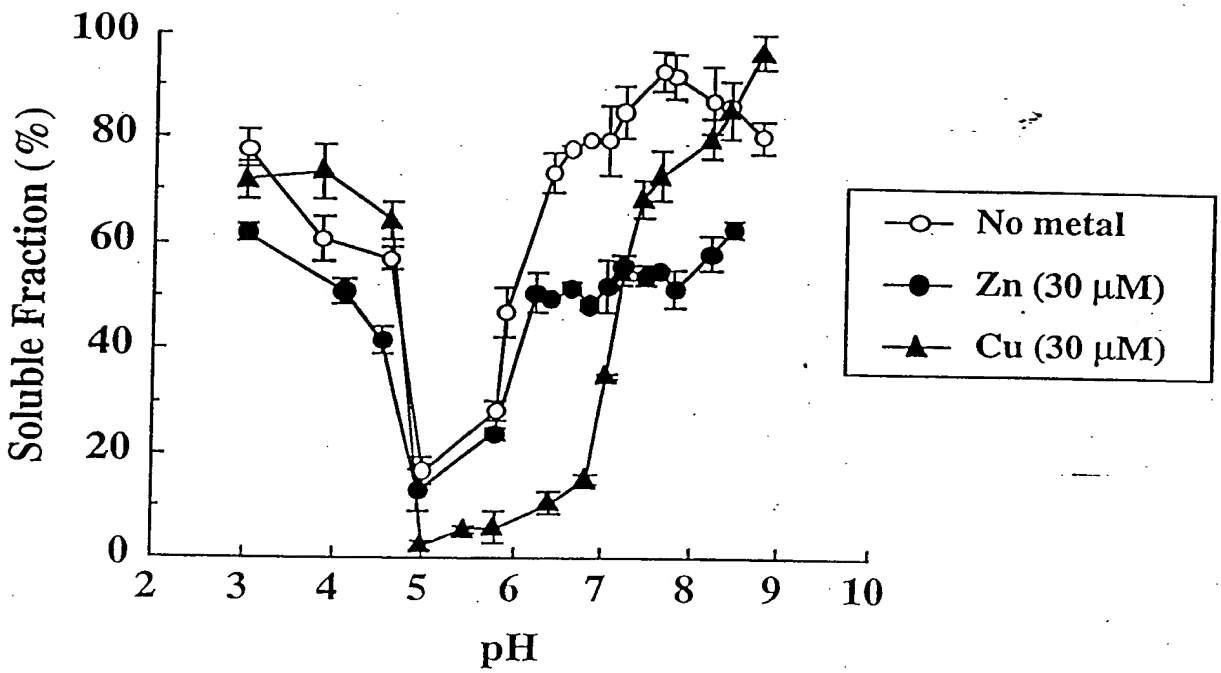

100
80
60
40
20
0
Soluble Fraction (%)
2
3
4
5
6
7
8
9
10
pH
No metal
Zn (30 μM)
Cu (30 μM)

Fig. 4A

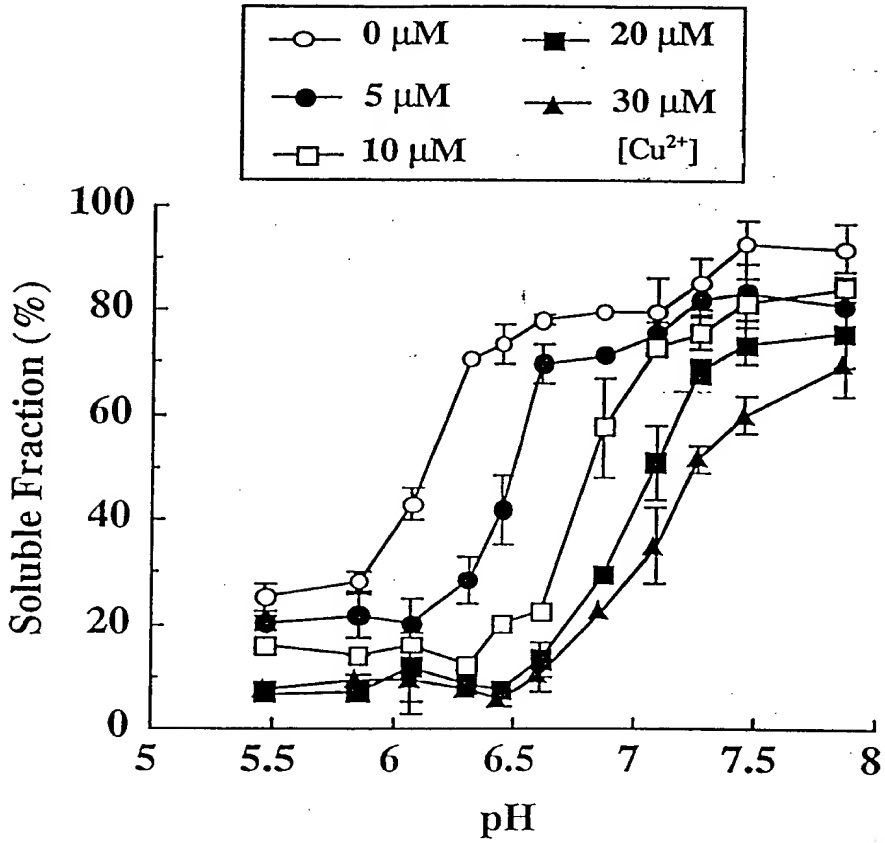

0 μM
5 μM
10 μM
20 μM
30 μM
[Cu2+]
Soluble Fraction (%)
100
80
60
40
20
0
5
5.5
6
6.5
7
7.5
8
pH

Fig 4 B.

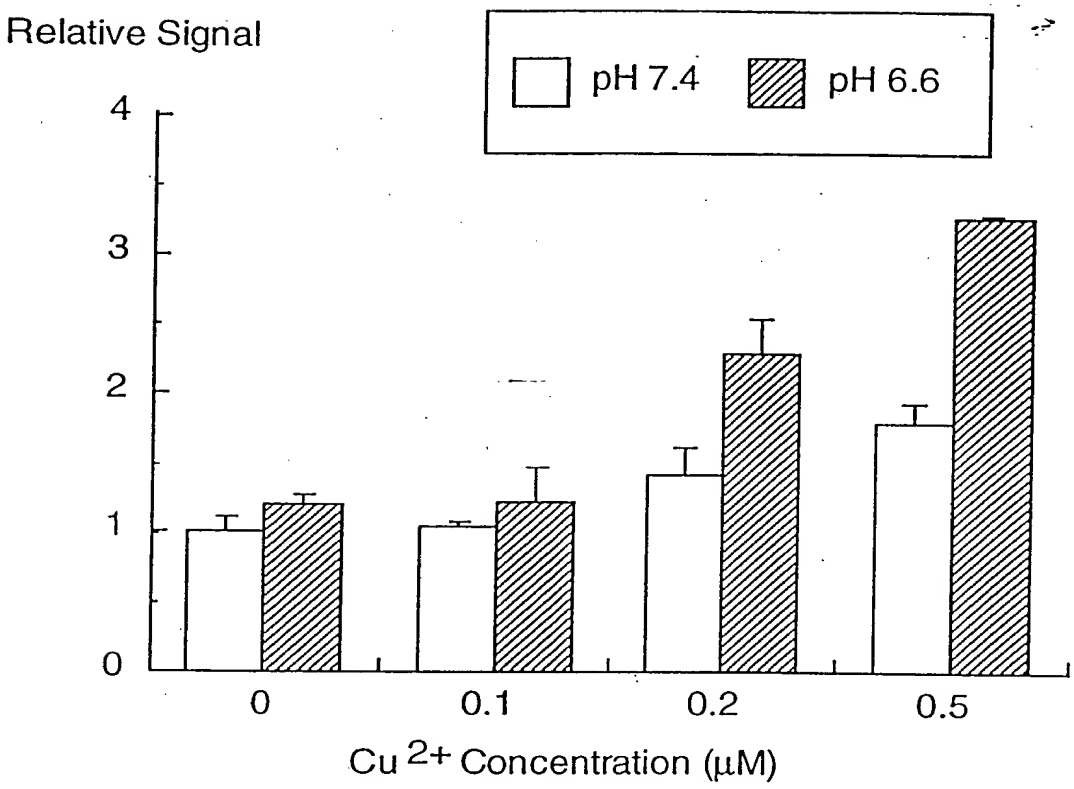

Relative Signal
pH 7.4
pH 6.6
4
3
2
1
0
0
0.1
0.2
0.5
Cu 2+ Concentration (μM)

Fig. 4C

T0T260 "0695660

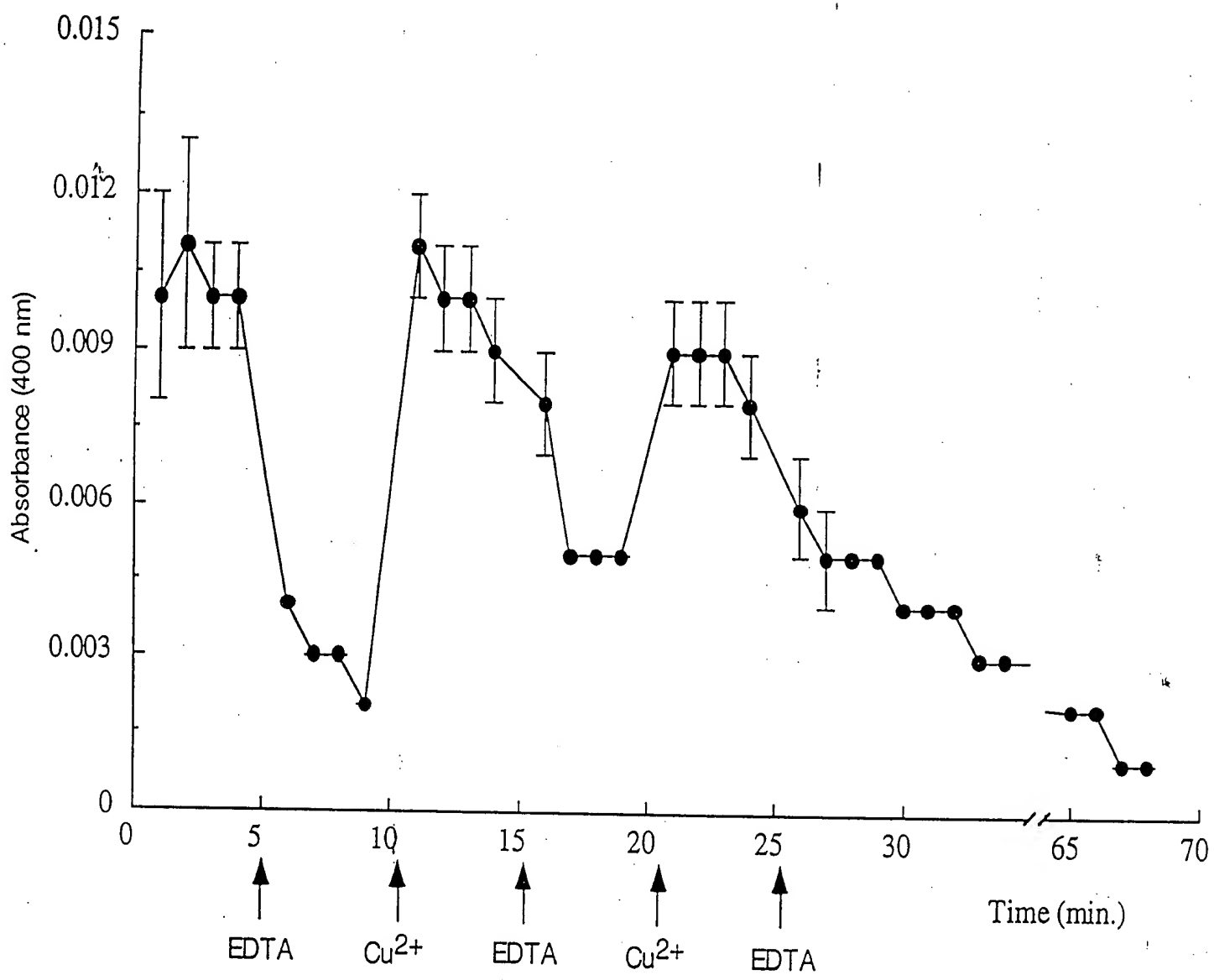


Fig. 5A

TOTEGO"0695660

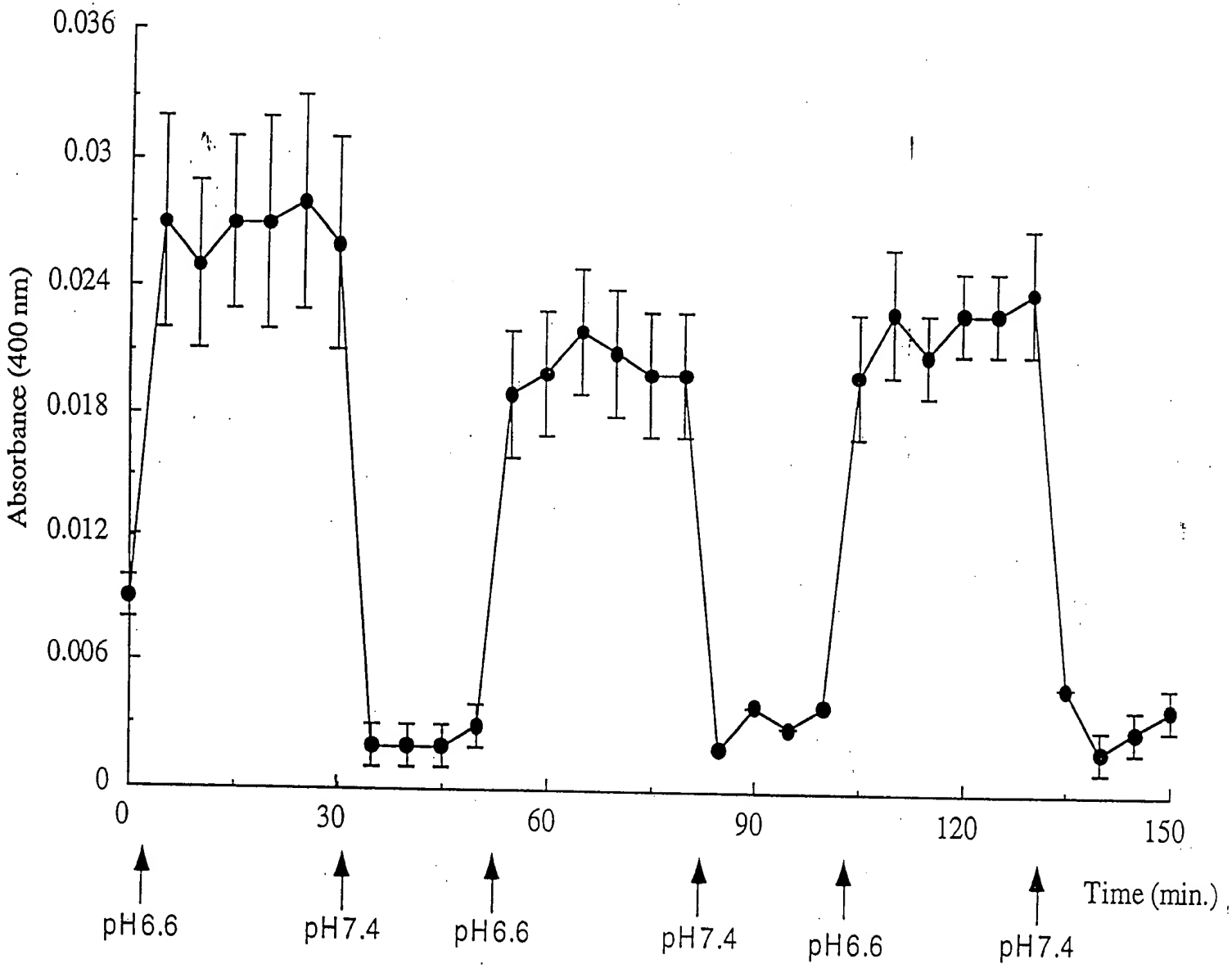


Fig. 5B

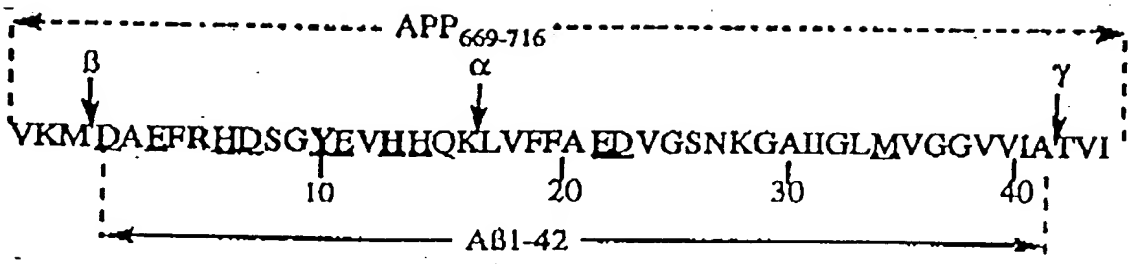

APP669-716
β
α
γ
VKMDAEFRHDSGYEVHHQKLVFFAEDVGSNKGAIIGLMVGGVVIATVI
10
20
30
40
Aβ1-42

Fig 6

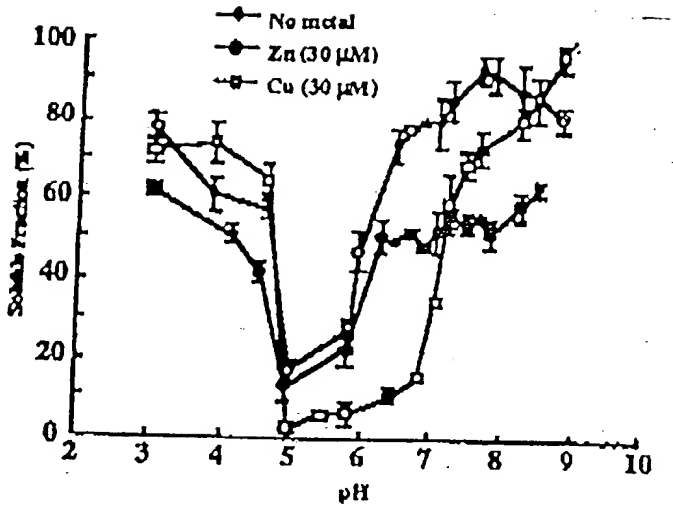

No metal
Zn (30 μM)
Cu (30 μM)
Soluble Fraction (%)
100
80
60
40
20
0
2
3
4
5
6
7
8
9
10
pH

Fig. 7

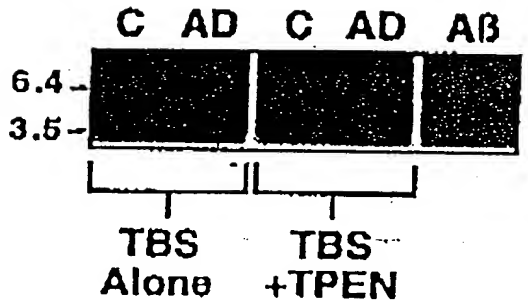


Fig. 8

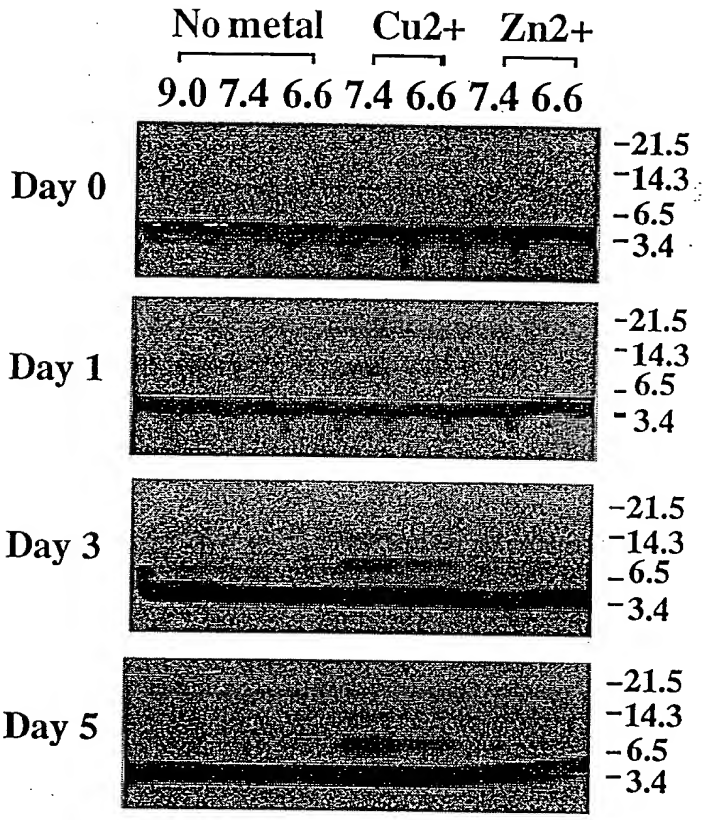

No metal
Cu2+
Zn2+
9.0 7.4 6.6 7.4 6.6 7.4 6.6
Day 0
Day 1
Day 3
Day 5
-21.5
-14.3
-6.5
-3.4

Fig. 9

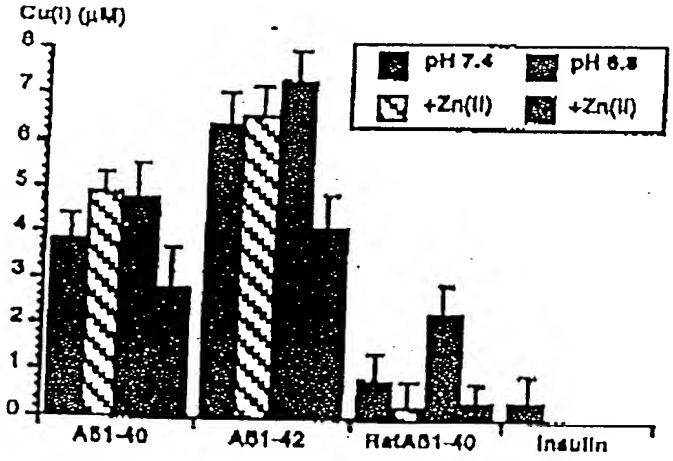

Cu(I) (μM)
8
7
6
5
4
3
2
1
0
pH 7.4
+Zn(II)
pH 6.6
+Zn(II)
Aβ1-40
Aβ1-42
RatAβ1-40
Insulin

Fig. 10

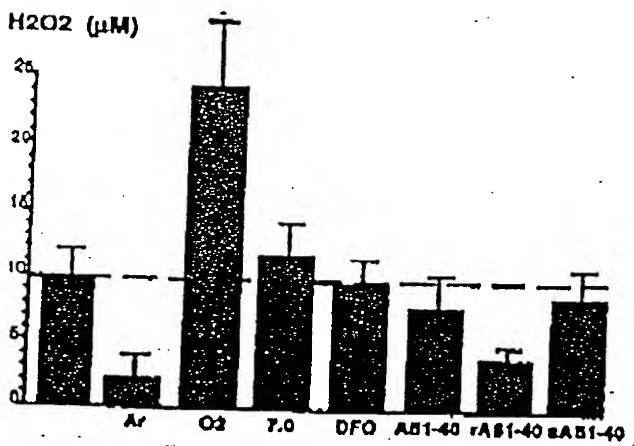


Fig. 11

10742002 "090556660

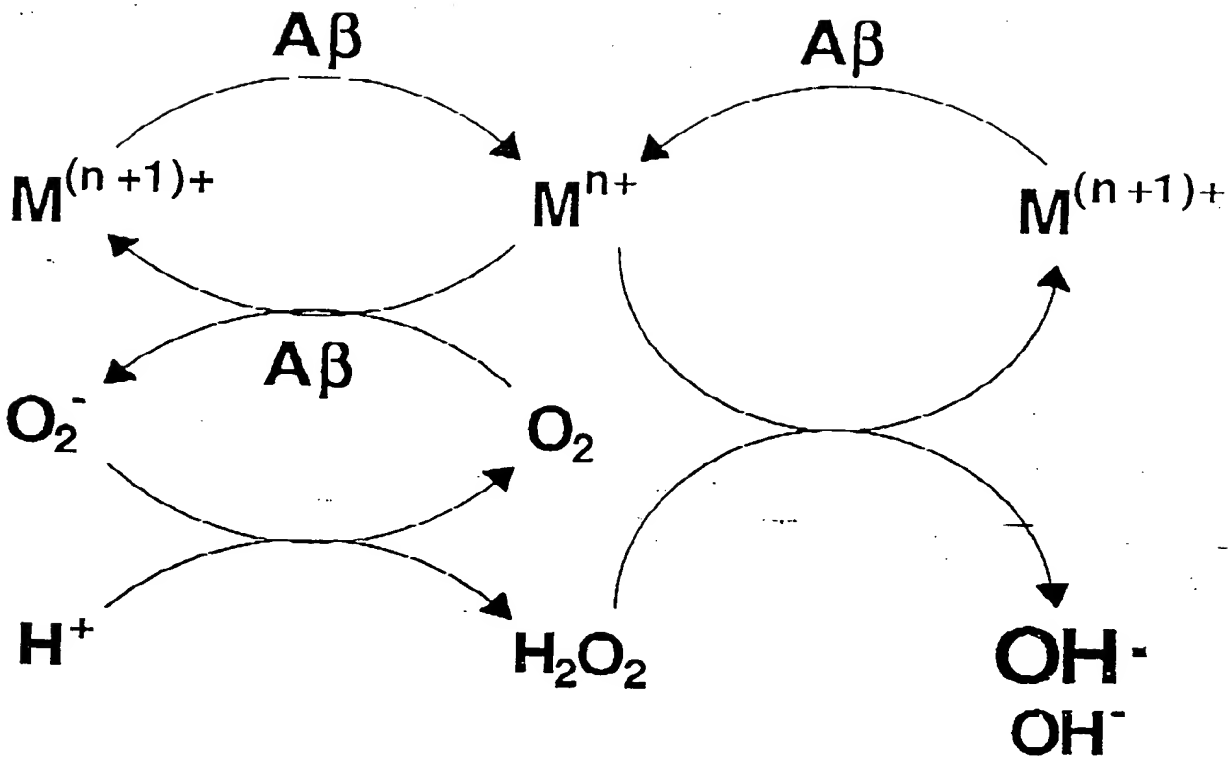


Fig. 12

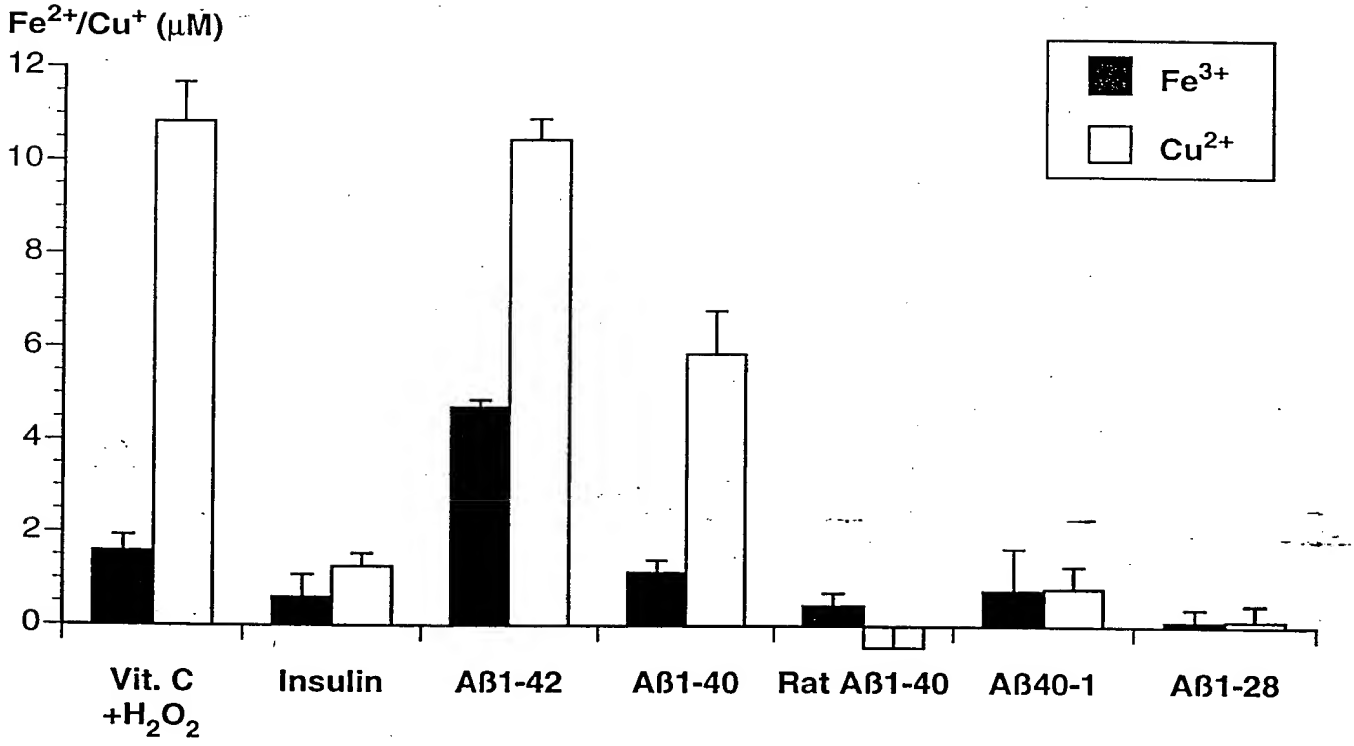

Fe2+/Cu+ (μM)
12
10
8
6
4
2
0
Fe3+
Cu2+
Vit. C +H2O2
Insulin
Aß1-42
Aß1-40
Rat Aß1-40
Aß40-1
Aß1-28

Fig. 13A

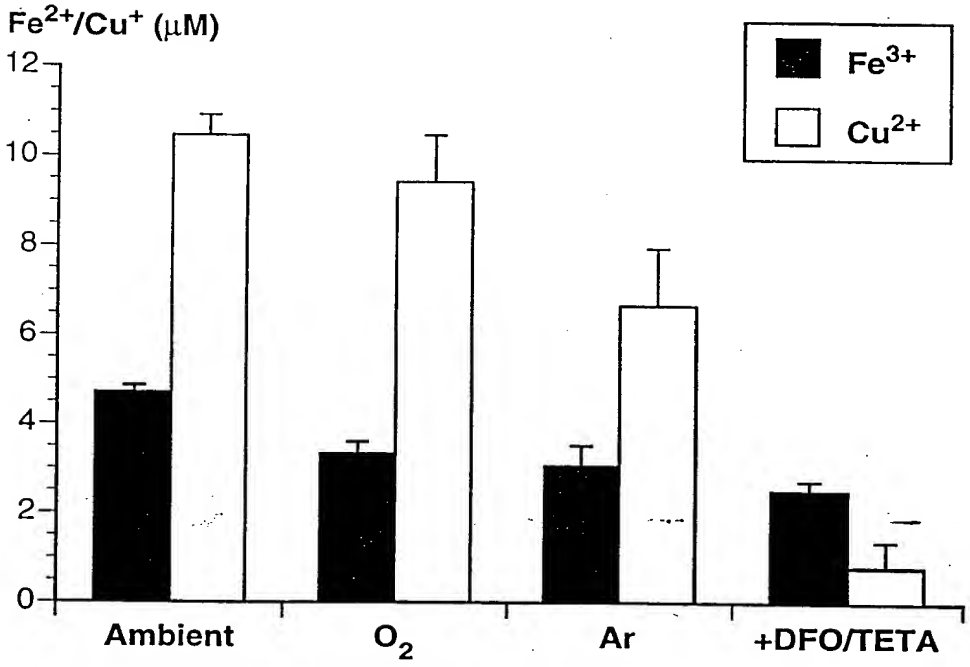


Fig. 13B

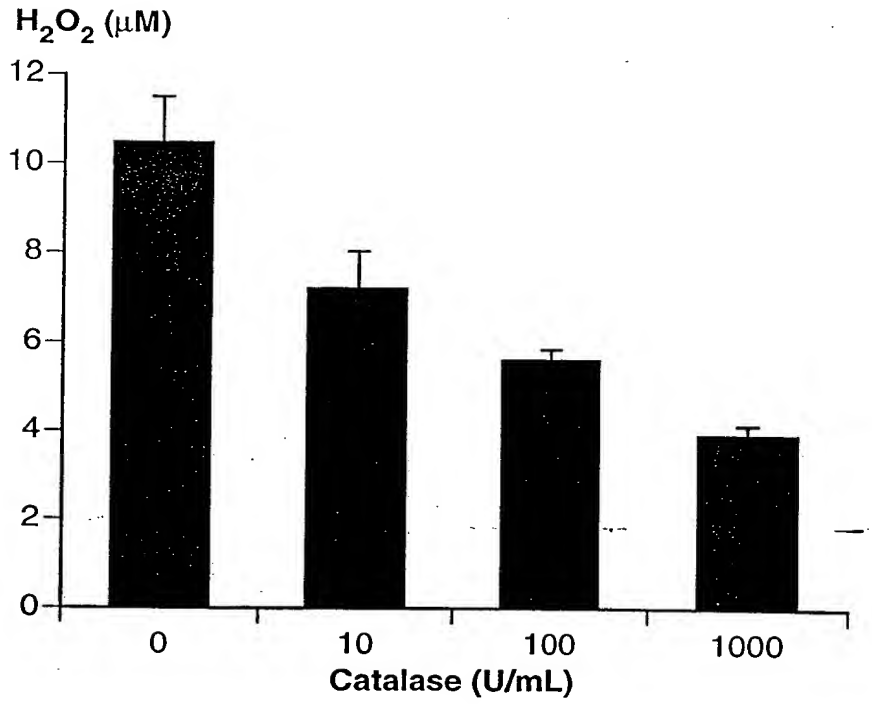


Fig. 14A

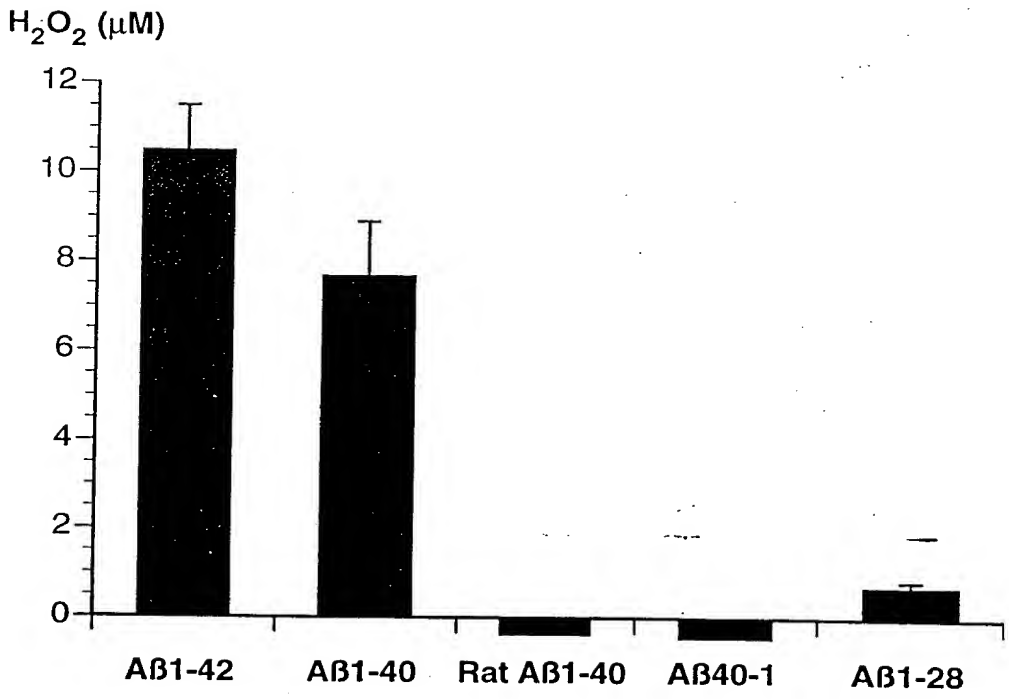


Fig. 14B

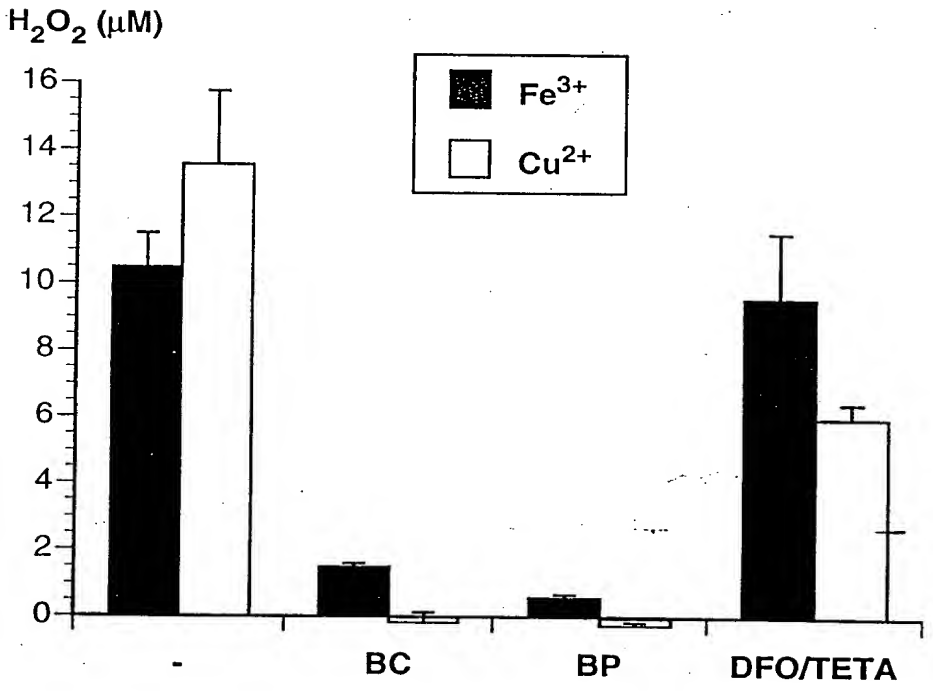


Fig. 14C

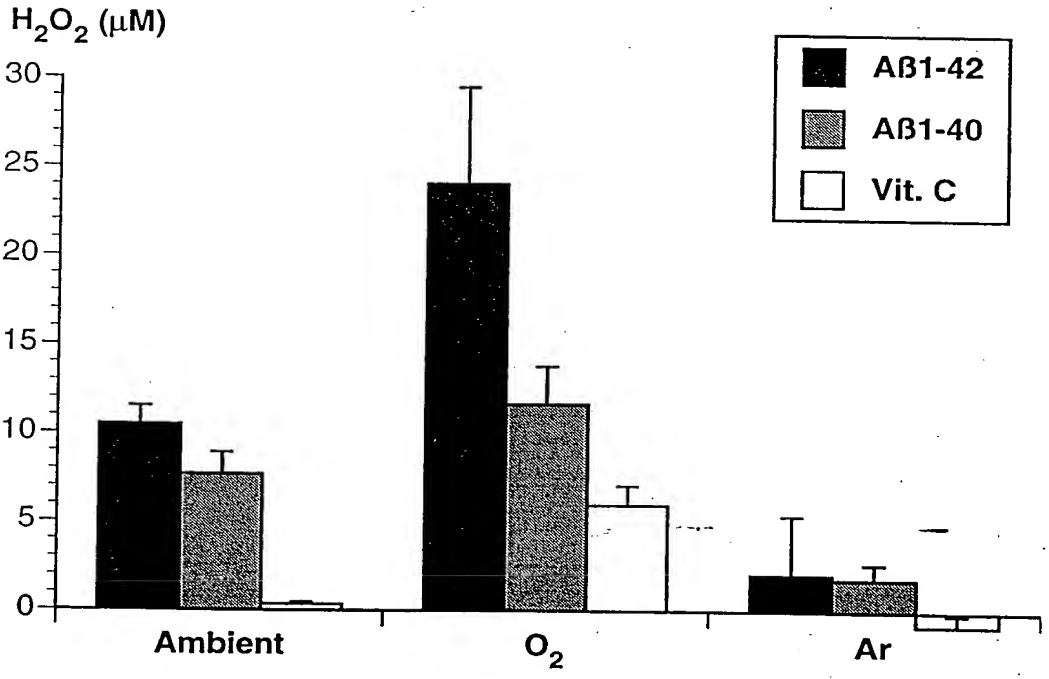


Fig. 14D

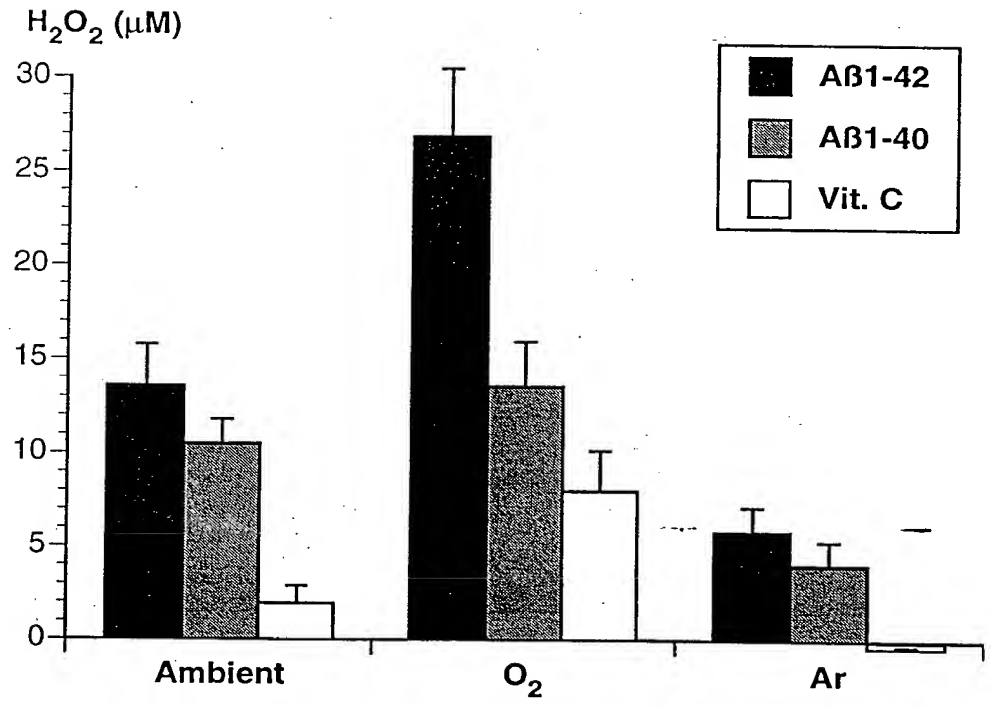


Fig. 14E

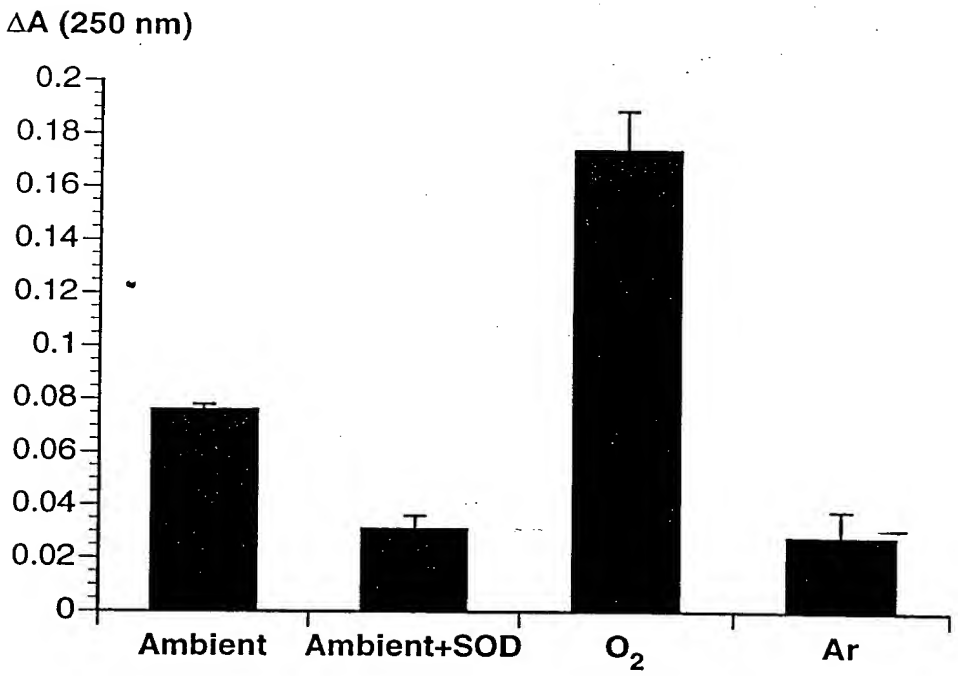

ΔA (250 nm)
0.2
0.18
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Ambient
Ambient+SOD
O2
Ar

Fig. 15A

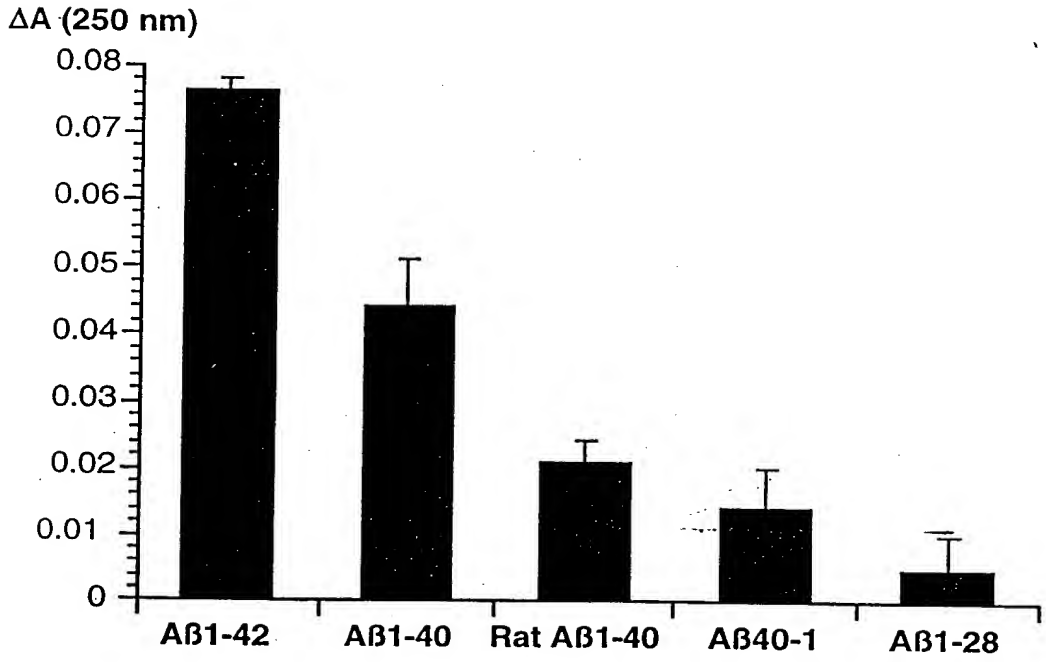

ΔA (250 nm)
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0
Aß1-42
Aß1-40
Rat Aß1-40
Aß40-1
Aß1-28

Fig. 15B

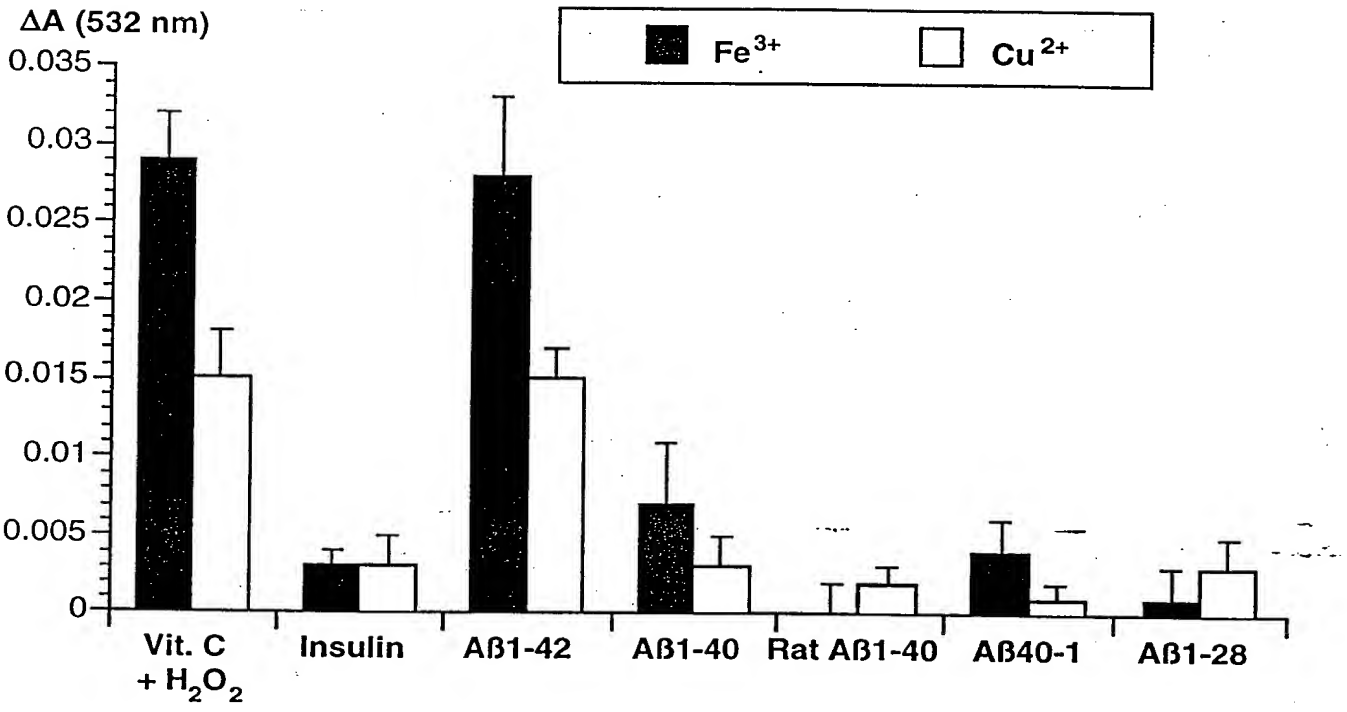

ΔA (532 nm)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
Fe3+
Cu2+
Vit. C + H2O2
Insulin
Aß1-42
Aß1-40
Rat Aß1-40
Aß40-1
Aß1-28

Fig. 16A

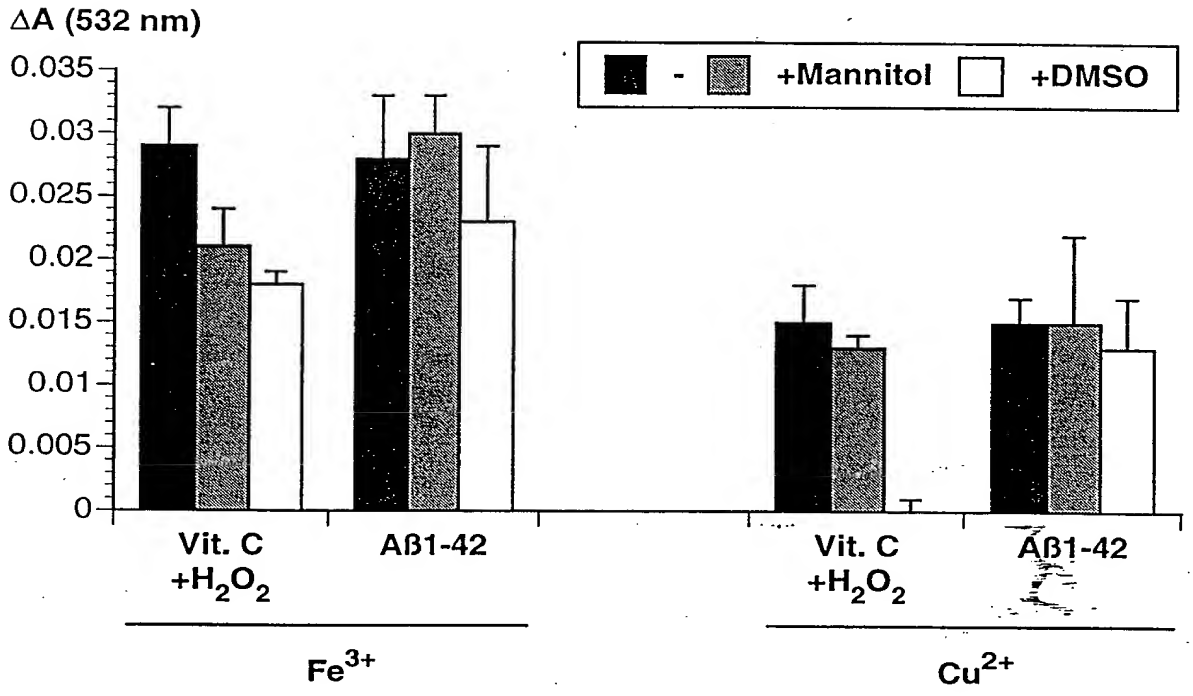

ΔA (532 nm)
0.035
0.03
0.025
0.02
0.015
0.01
0.005
0
- +Mannitol +DMSO
Vit. C
+H2O2
Aß1-42
Vit. C
+H2O2
Aß1-42
Fe3+
Cu2+

Fig. 16B

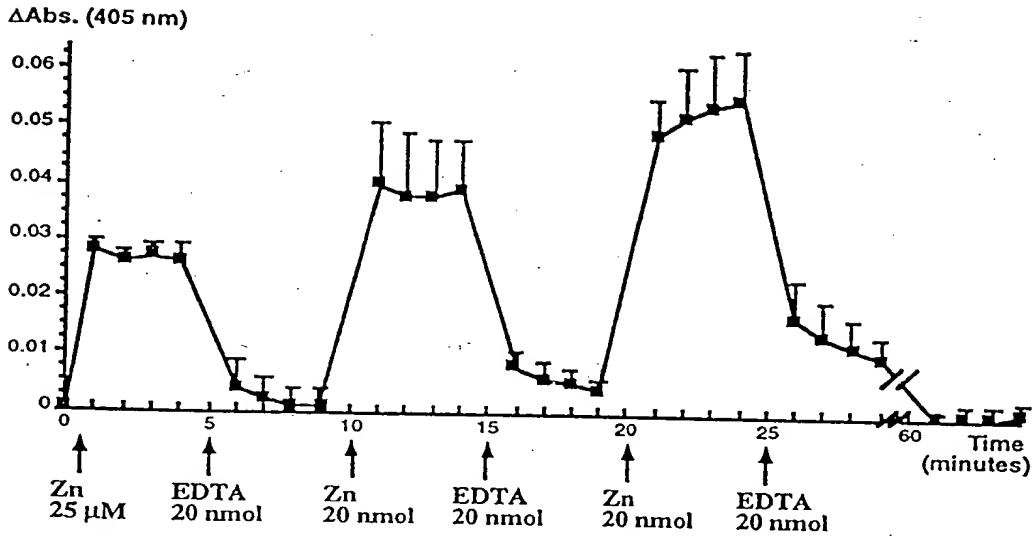

ΔAbs. (405 nm)
0.06
0.05
0.04
0.03
0.02
0.01
0
0
5
10
15
20
25
60
Time
(minutes)
Zn
25 μM
EDTA
20 nmol
Zn
20 nmol
EDTA
20 nmol
Zn
20 nmol
EDTA
20 nmol

Fig. 17

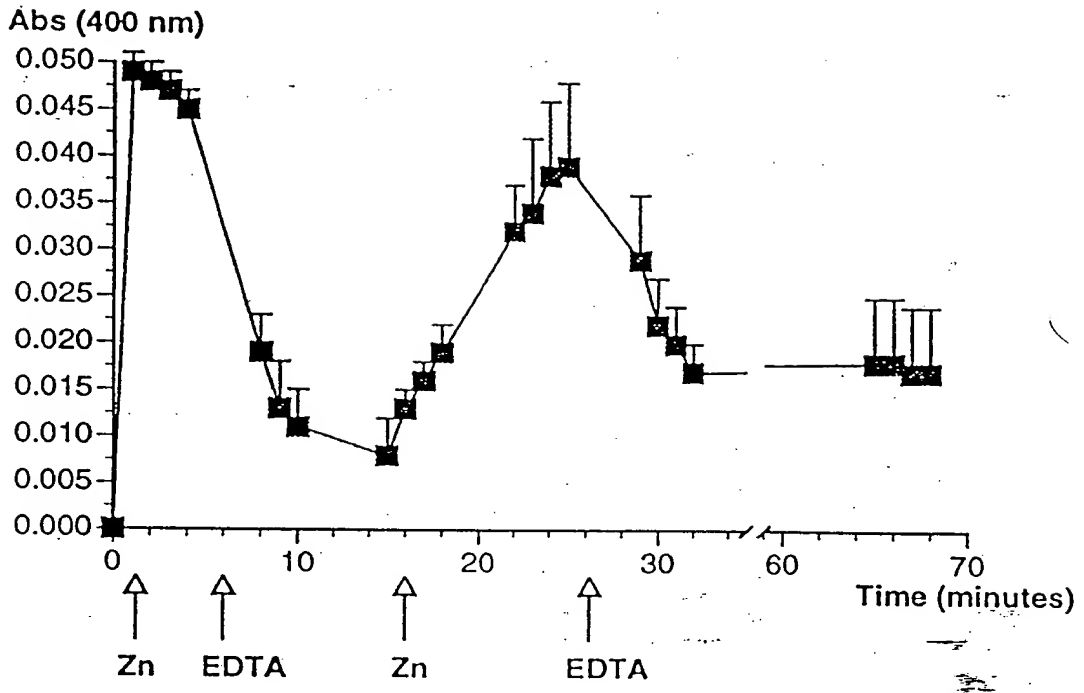

Abs (400 nm)
0.050
0.045
0.040
0.035
0.030
0.025
0.020
0.015
0.010
0.005
0.000
0
10
20
30
60
70
Time (minutes)
Zn
EDTA
Zn
EDTA

Fig. 18

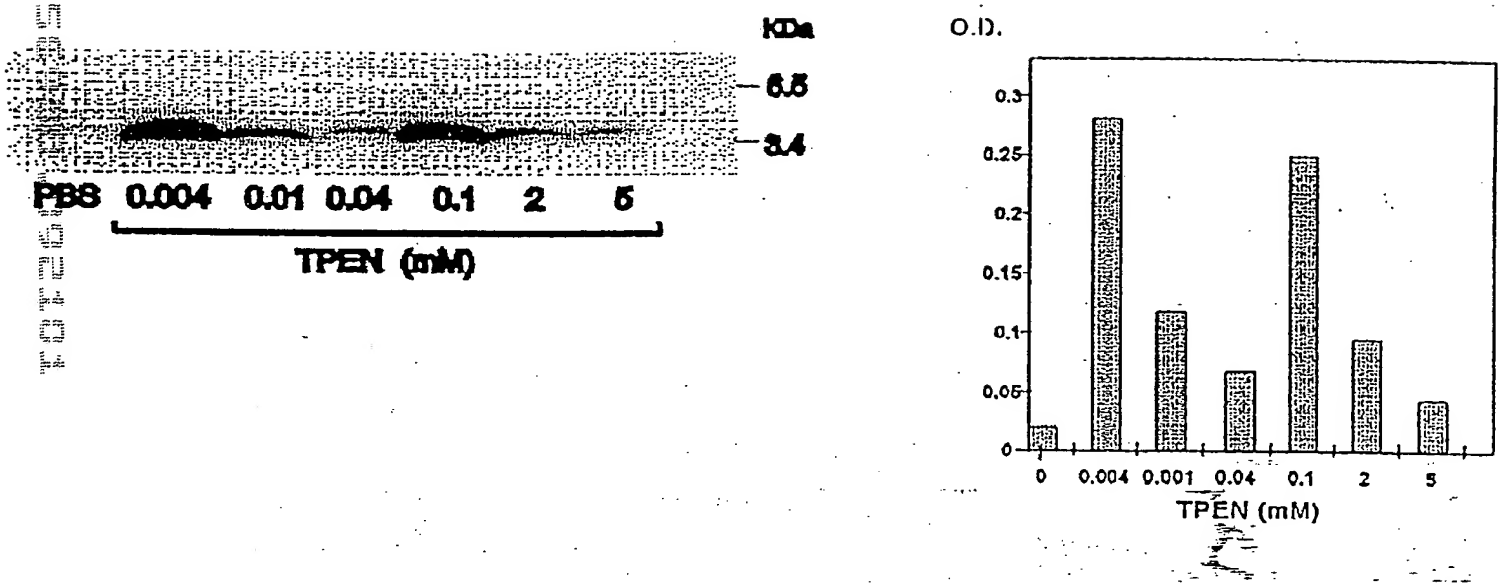
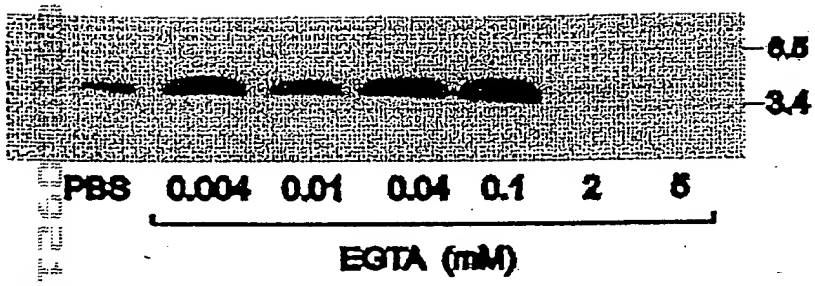

KDa
6.5
3.4
PBS 0.004 0.01 0.04 0.1 2 5
TPEN (mM)
O.D.
0.3
0.25
0.2
0.15
0.1
0.05
0
0 0.004 0.001 0.04 0.1 2 5
TPEN (mM)

Fig. 19A


6.5
3.4
PBS
0.004
0.01
0.04
0.1
2
5
EGTA (mM)

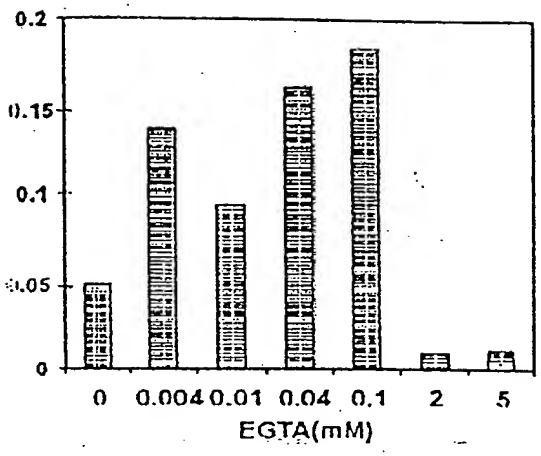
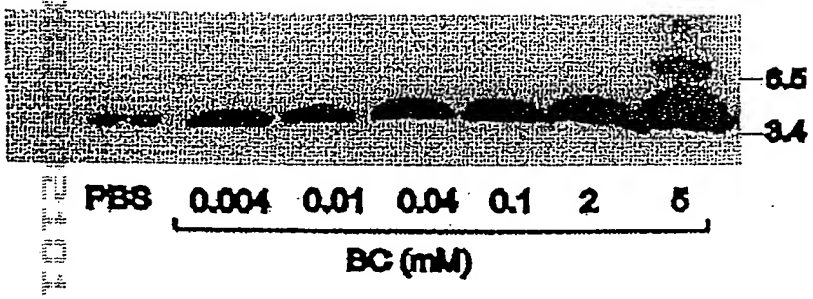

0.2
0.15
0.1
0.05
0
0
0.004
0.01
0.04
0.1
2
5
EGTA(mM)

Fig. 19B


6.5
3.4
PBS
0.004
0.01
0.04
0.1
2
5
BC (mM)

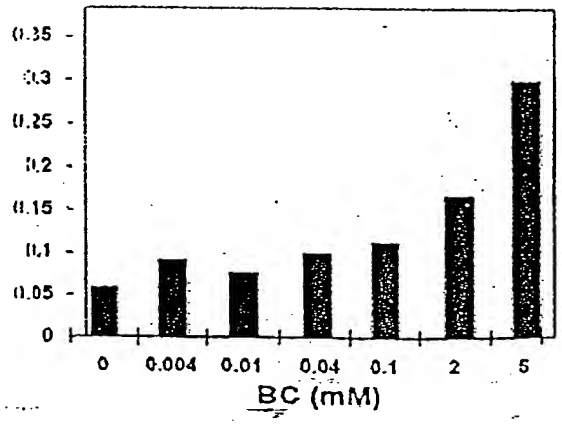
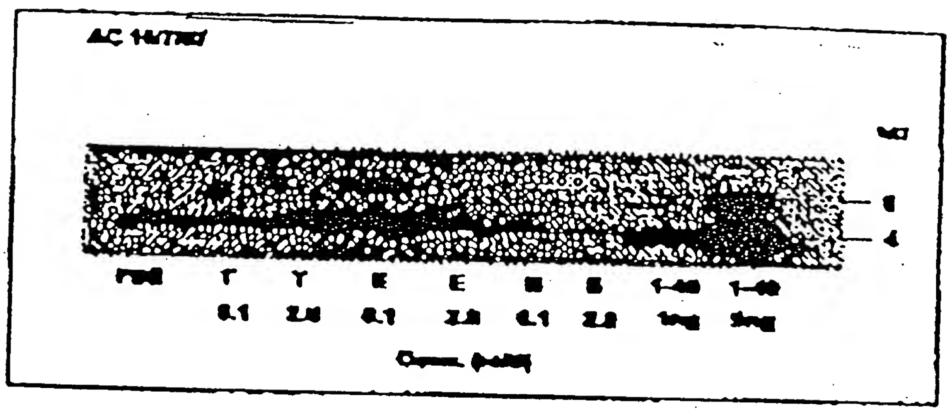
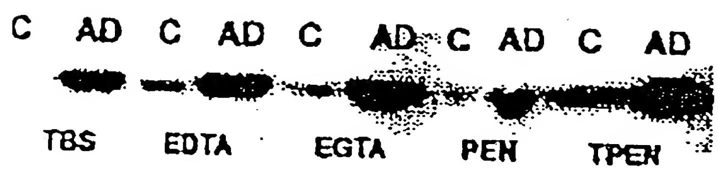

0.35
0.3
0.25
0.2
0.15
0.1
0.05
0
0
0.004
0.01
0.04
0.1
2
5
BC (mM)

Fig. 19C



Age- matched control- (indicative gel)

Fig. 20A



Young control vs AD, various chelators.5mM

Fig. 20B

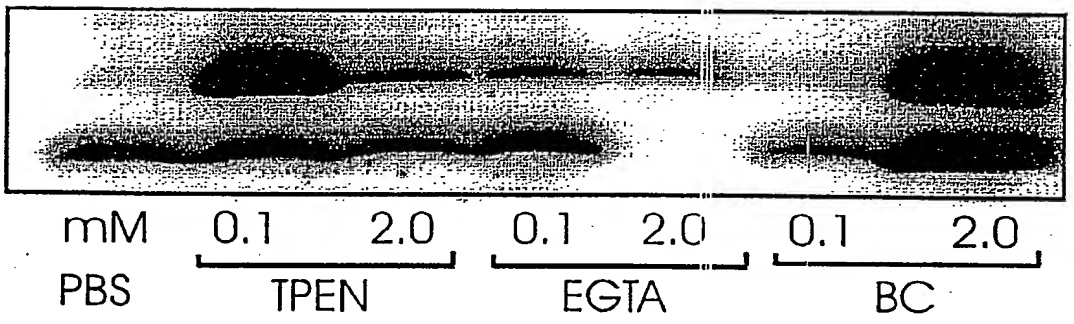


Fig. 21

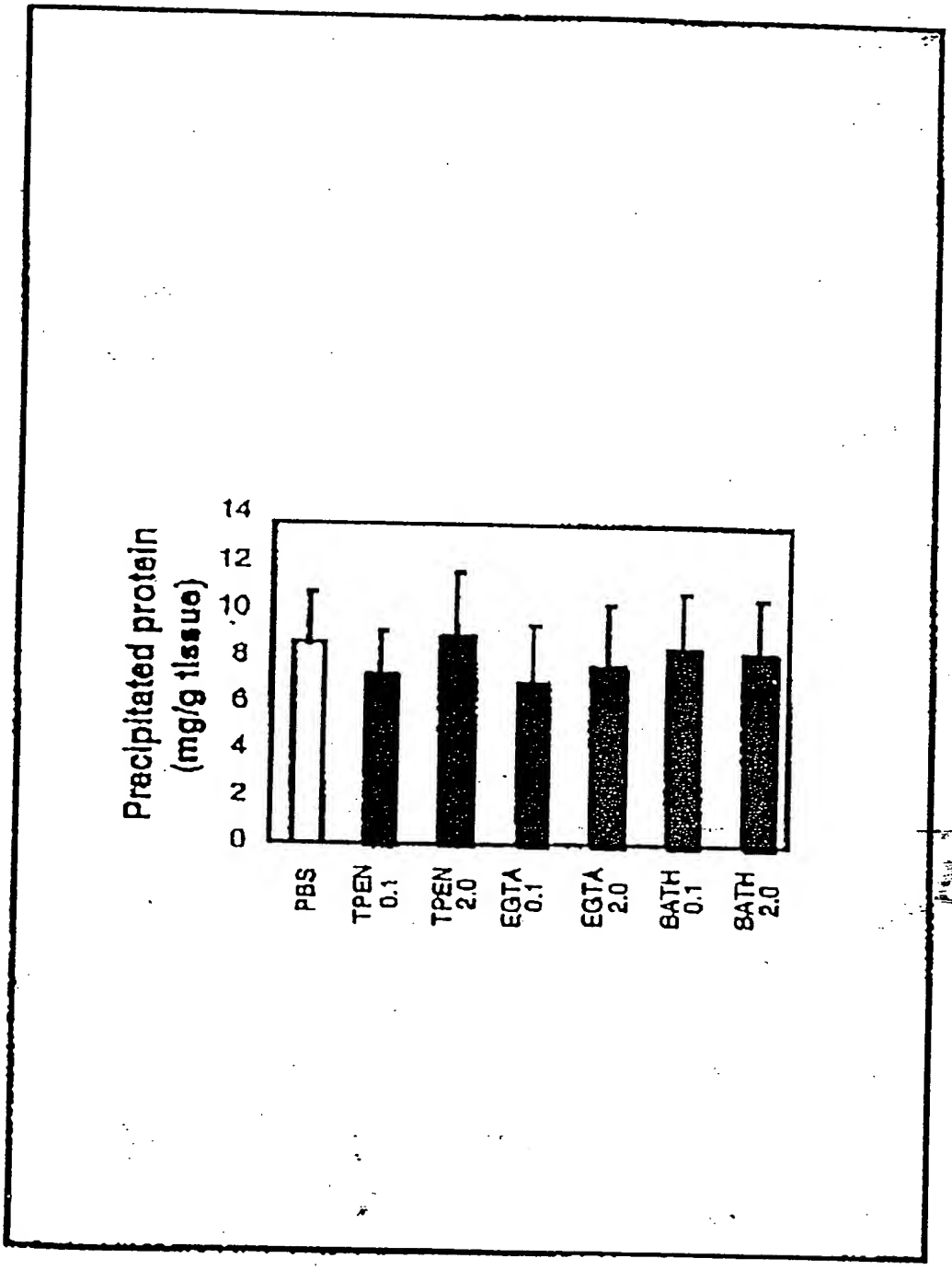

Precipitated protein
(mg/g tissue)
14
12
10
8
6
4
2
0
PBS
TPEN 0.1
TPEN 2.0
EGTA 0.1
EGTA 2.0
BATH 0.1
BATH 2.0

Fig. 22

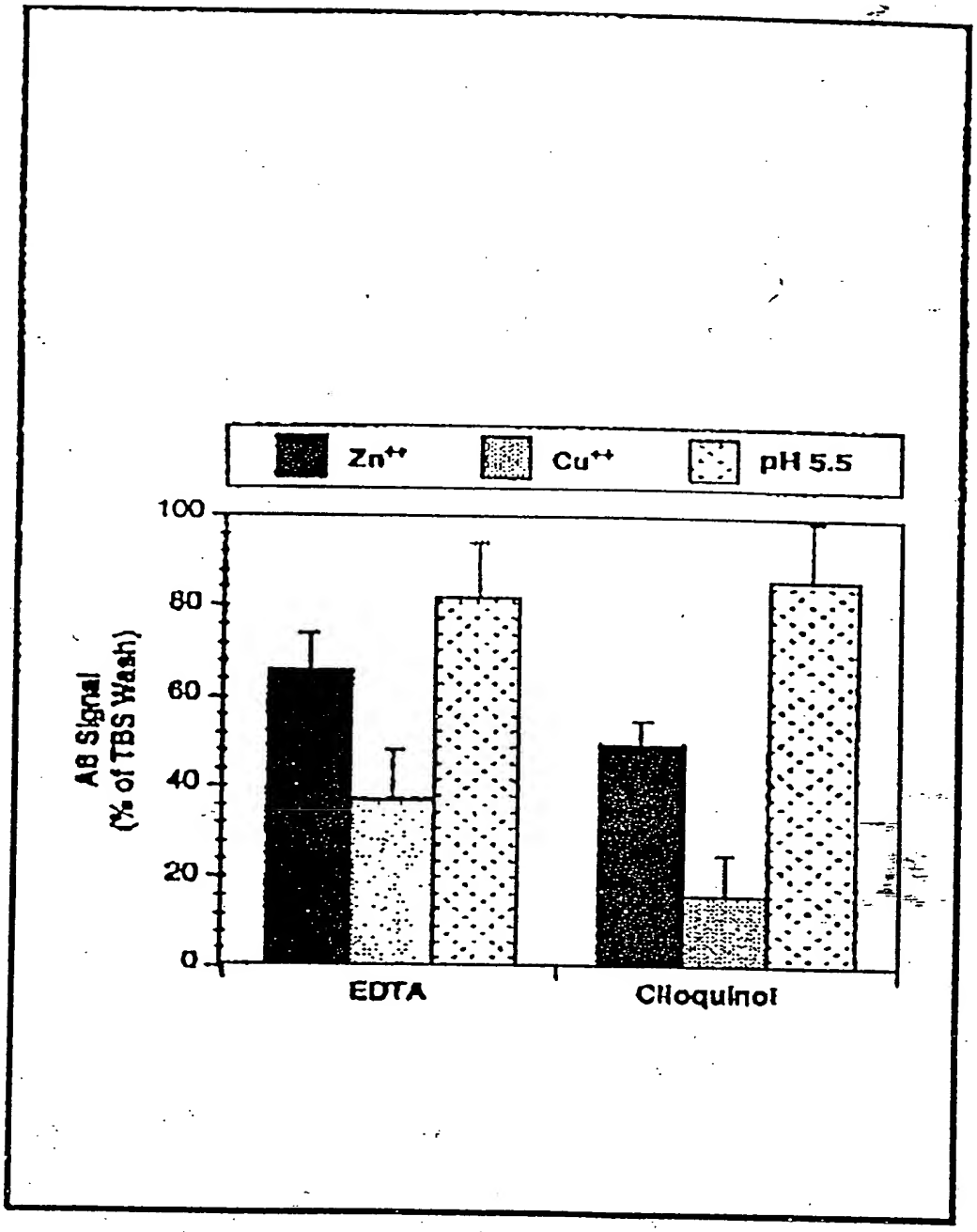

Zn++
Cu++
pH 5.5
100
80
60
40
20
0
Aβ Signal
(% of TBS Wash)
EDTA
Clioquinol

Fig. 23

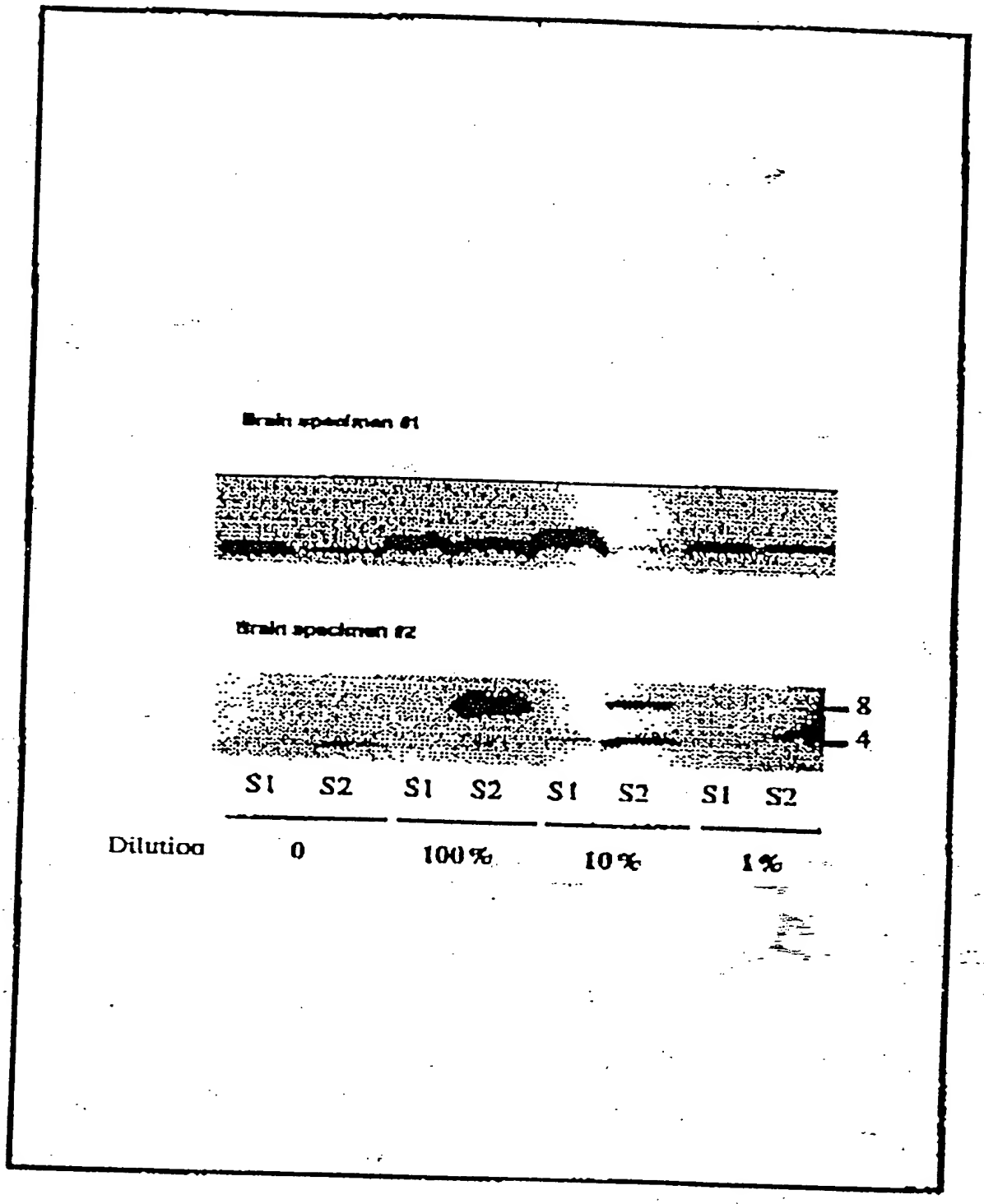

Brain specimen #1
Brain specimen #2
8
4
S1 S2 S1 S2 S1 S2 S1 S2
Dilution 0 100% 10% 1%

Fig. 24

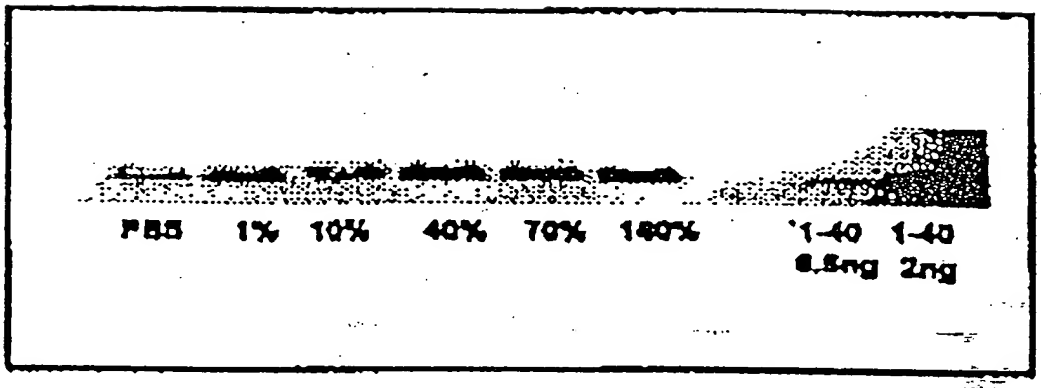


Fig. 25A

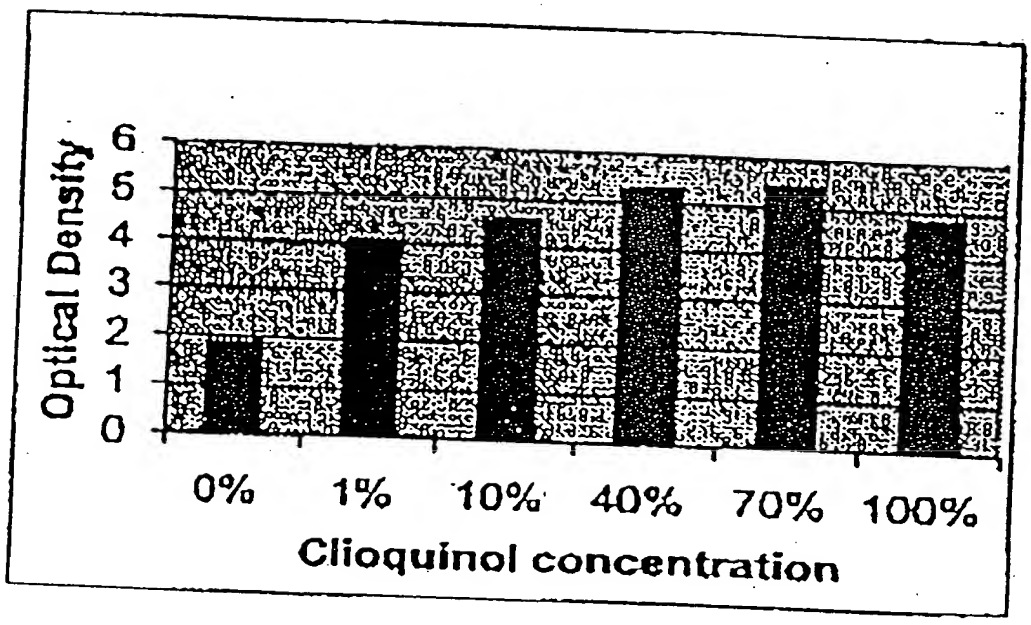

Optical Density
6
5
4
3
2
1
0
0%
1%
10%
40%
70%
100%
Clioquinol concentration

Fig. 25B

TOTZ60 D0695560

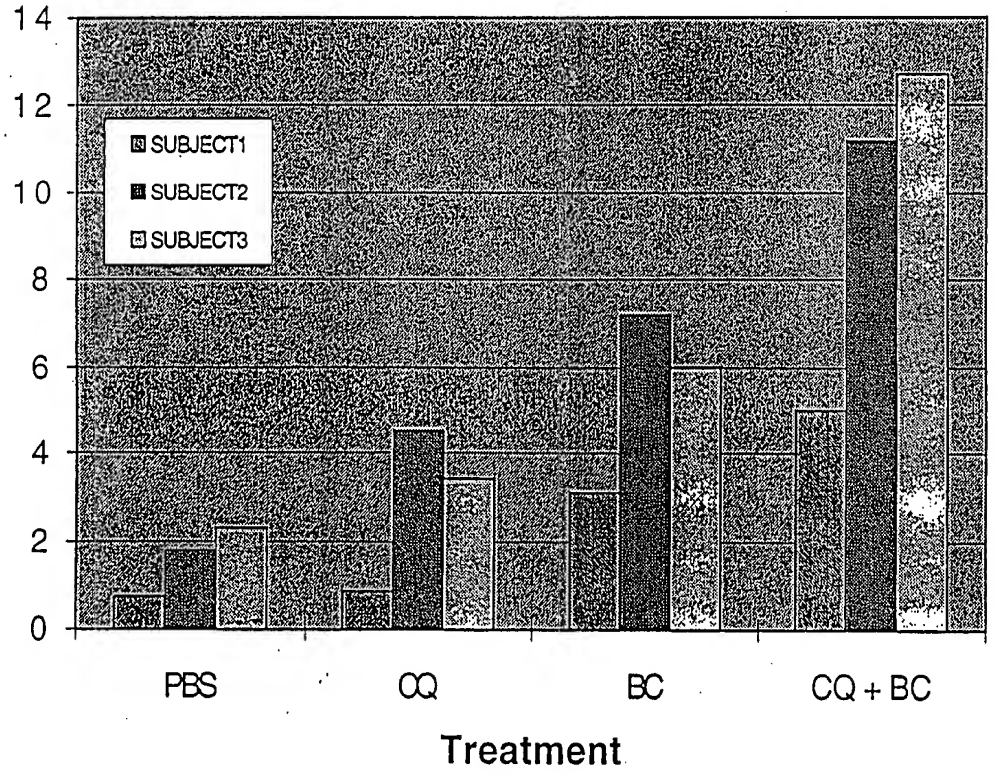


Fig. 26

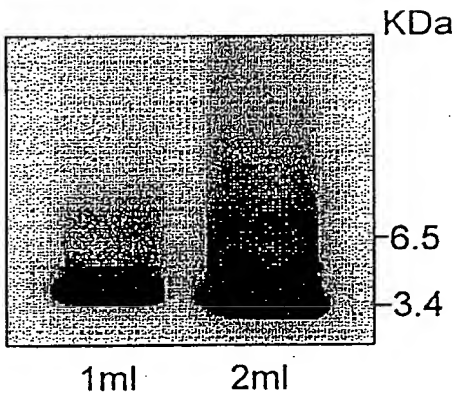


Fig. 27

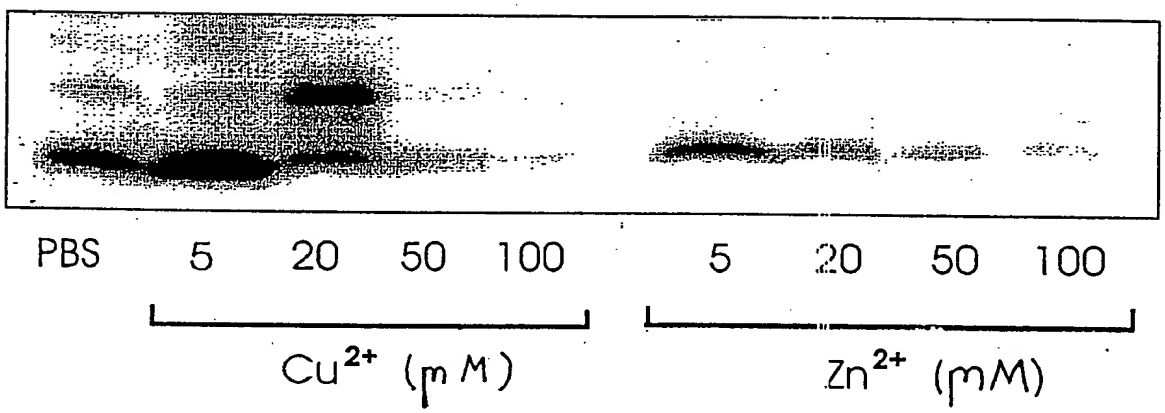


Fig. 28A

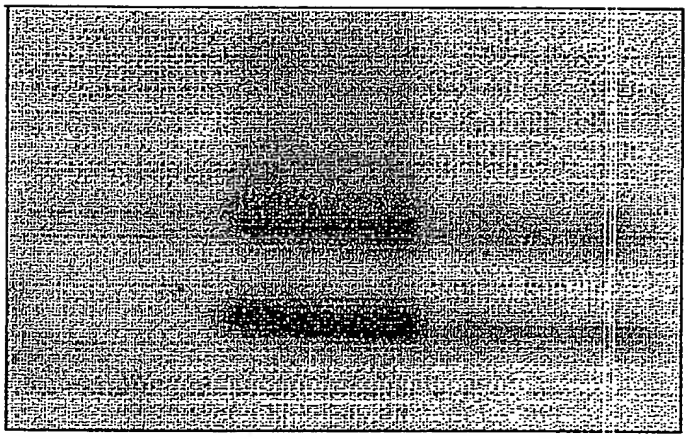


Fig. 28B

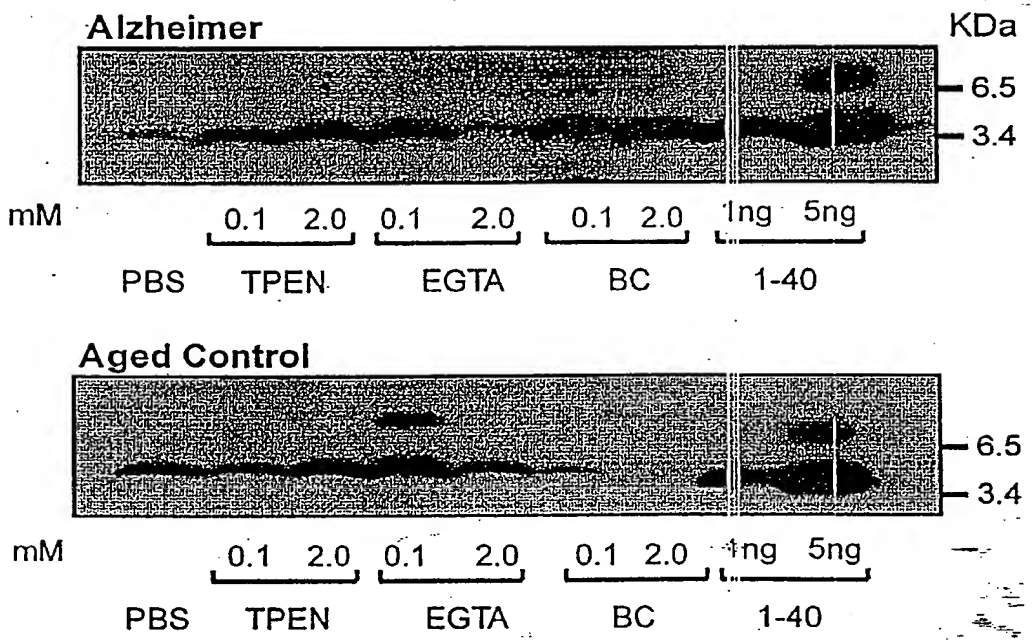

Alzheimer
KDa
6.5
3.4
mM
0.1 2.0 0.1 2.0 0.1 2.0 1ng 5ng
PBS TPEN EGTA BC 1-40
Aged Control
6.5
3.4
mM
0.1 2.0 0.1 2.0 0.1 2.0 1ng 5ng
PBS TPEN EGTA BC 1-40

Fig. 29A

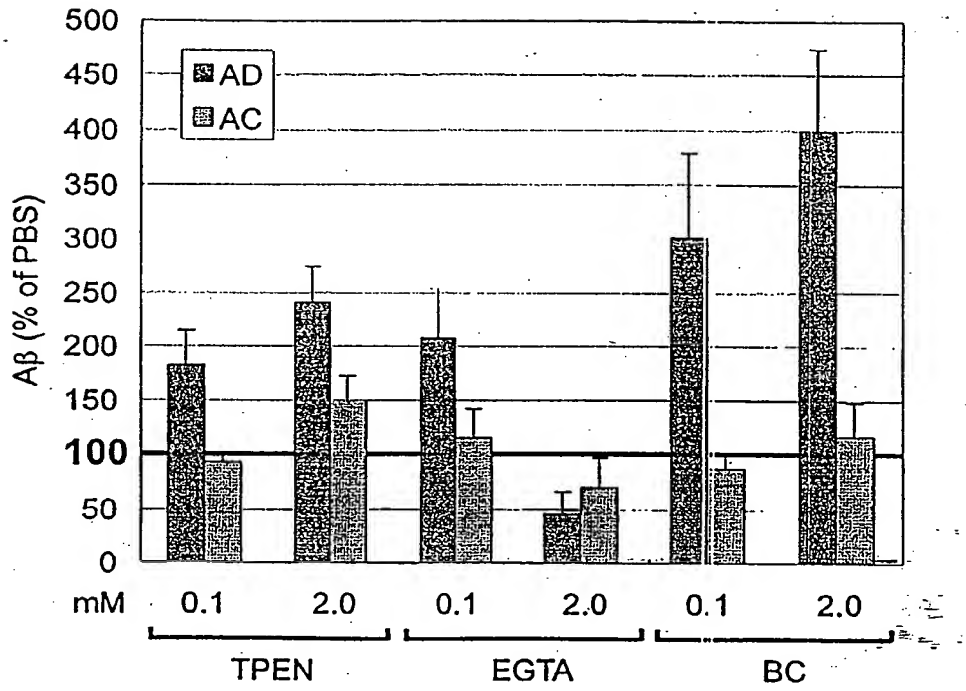

500
450
400
350
300
250
200
150
100
50
0
Aβ (% of PBS)
AD
AC
mM
0.1
2.0
0.1
2.0
0.1
2.0
TPEN
EGTA
BC

Fig. 29B

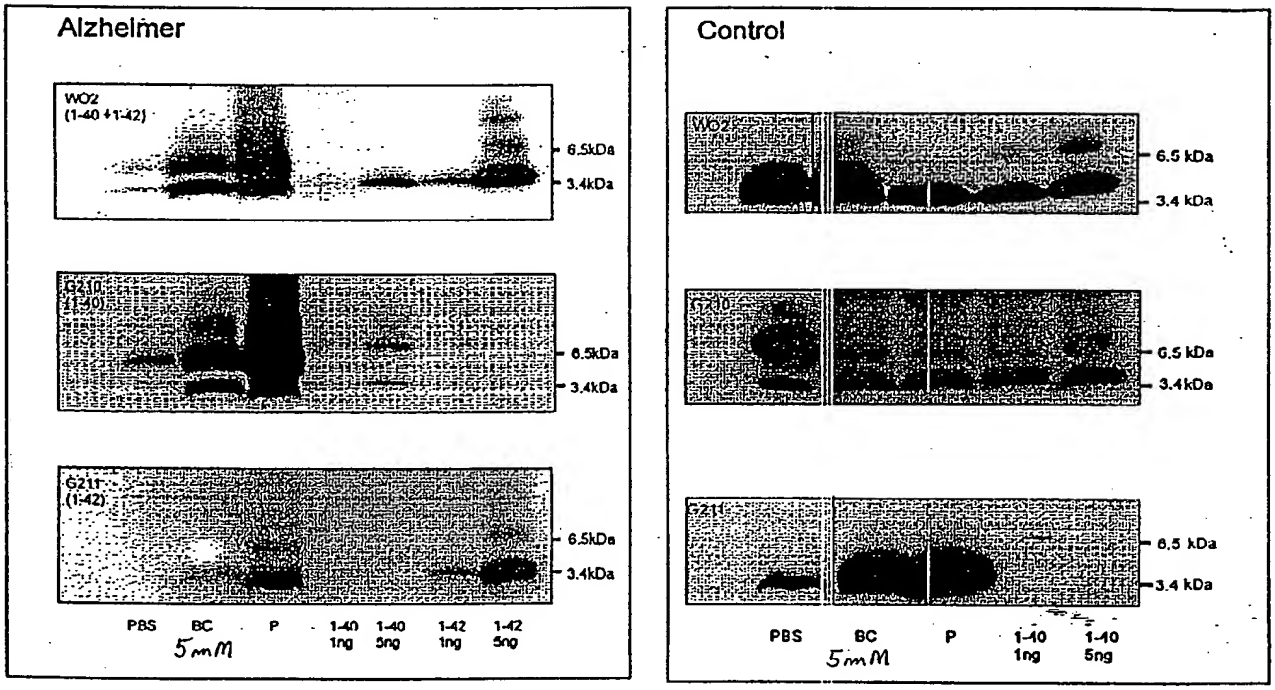

Alzheimer
WO2
(1-40 +1-42)
6.5kDa
3.4kDa
G210
(1-40)
6.5kDa
3.4kDa
G211
(1-42)
6.5kDa
3.4kDa
PBS
BC
5mM
P
1-40 1ng
1-40 5ng
1-42 1ng
1-42 5ng
Control
WO2
6.5 kDa
3.4 kDa
G210
6.5 kDa
3.4kDa
G211
6.5 kDa
3.4 kDa
PBS
BC
5mM
P
1-40 1ng
1-40 5ng

Fig. 30

TOT260 08595660

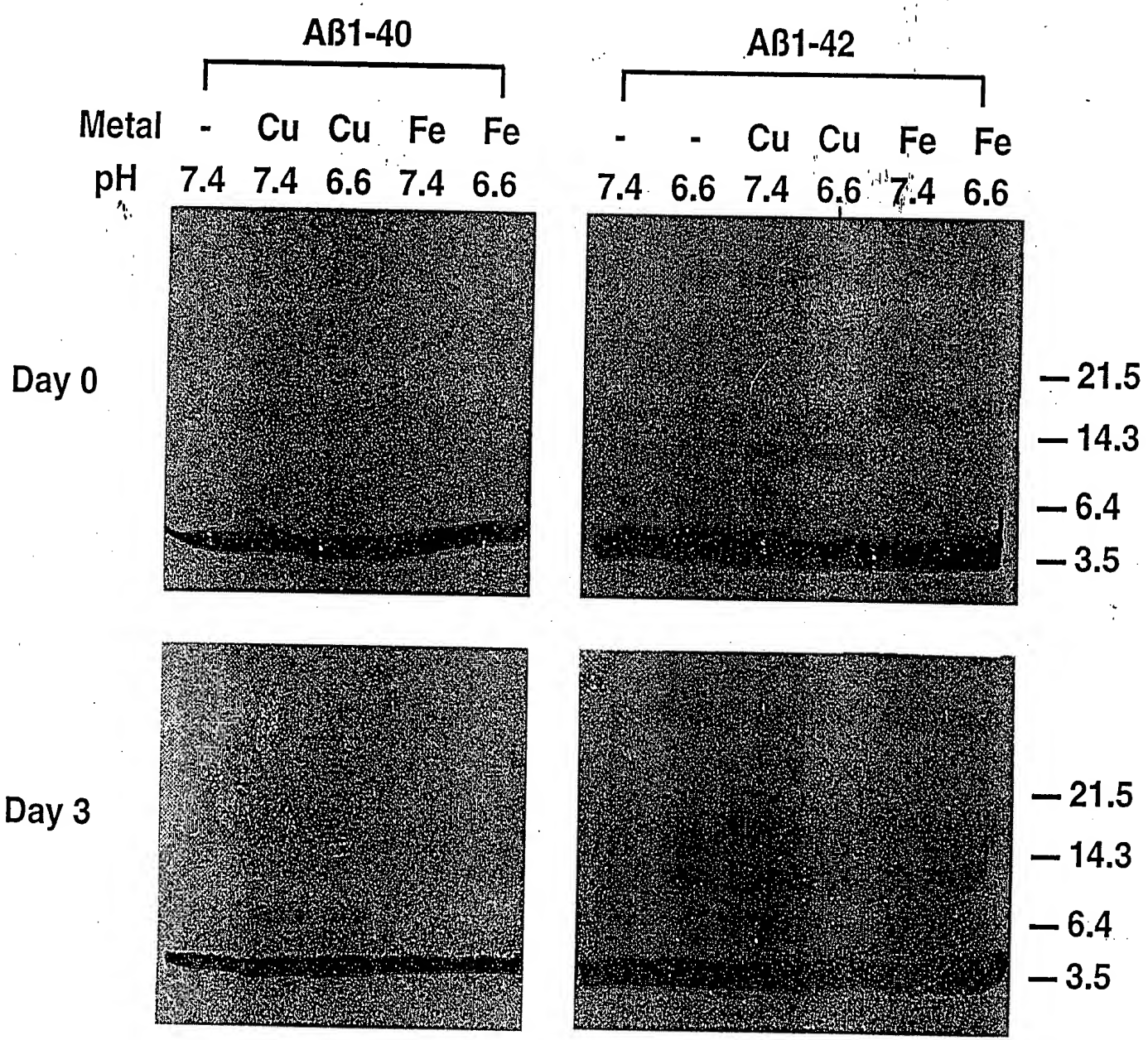


Fig. 31A

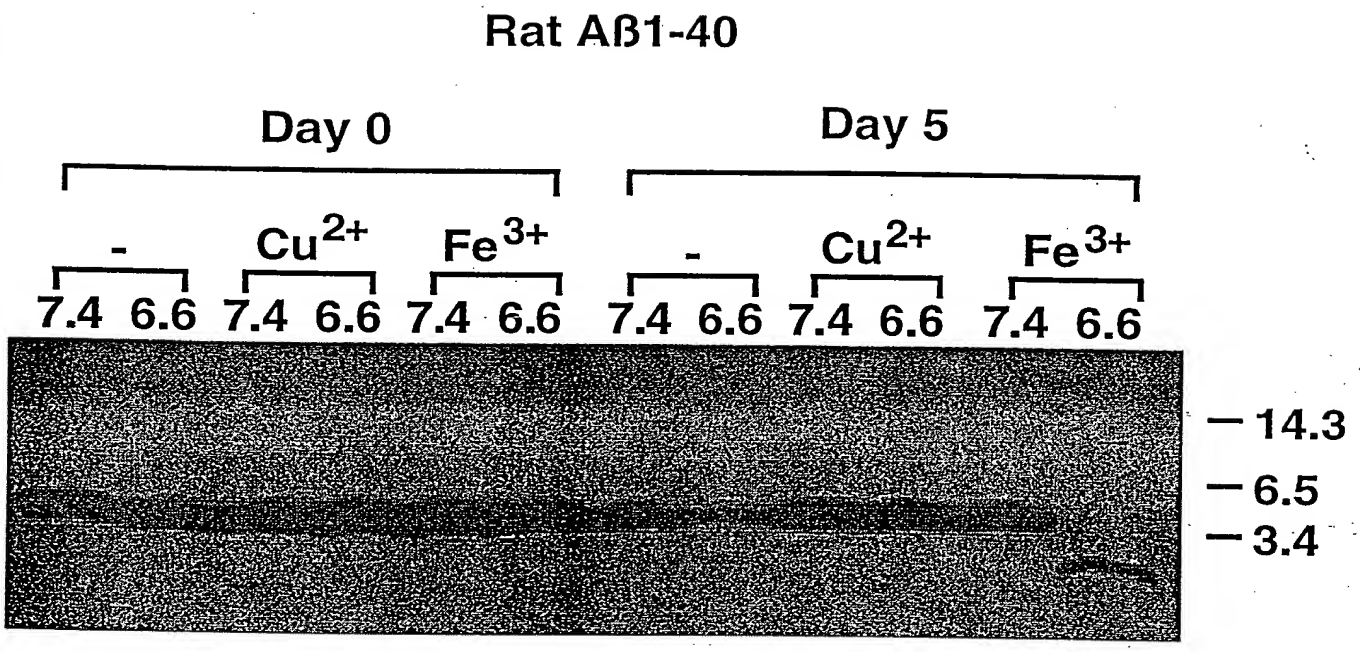

Rat Aß1-40
Day 0
Day 5
-
Cu2+
Fe3+
-
Cu2+
Fe3+
7.4 6.6 7.4 6.6 7.4 6.6 7.4 6.6 7.4 6.6 7.4 6.6
14.3
6.5
3.4

Fig. 31B

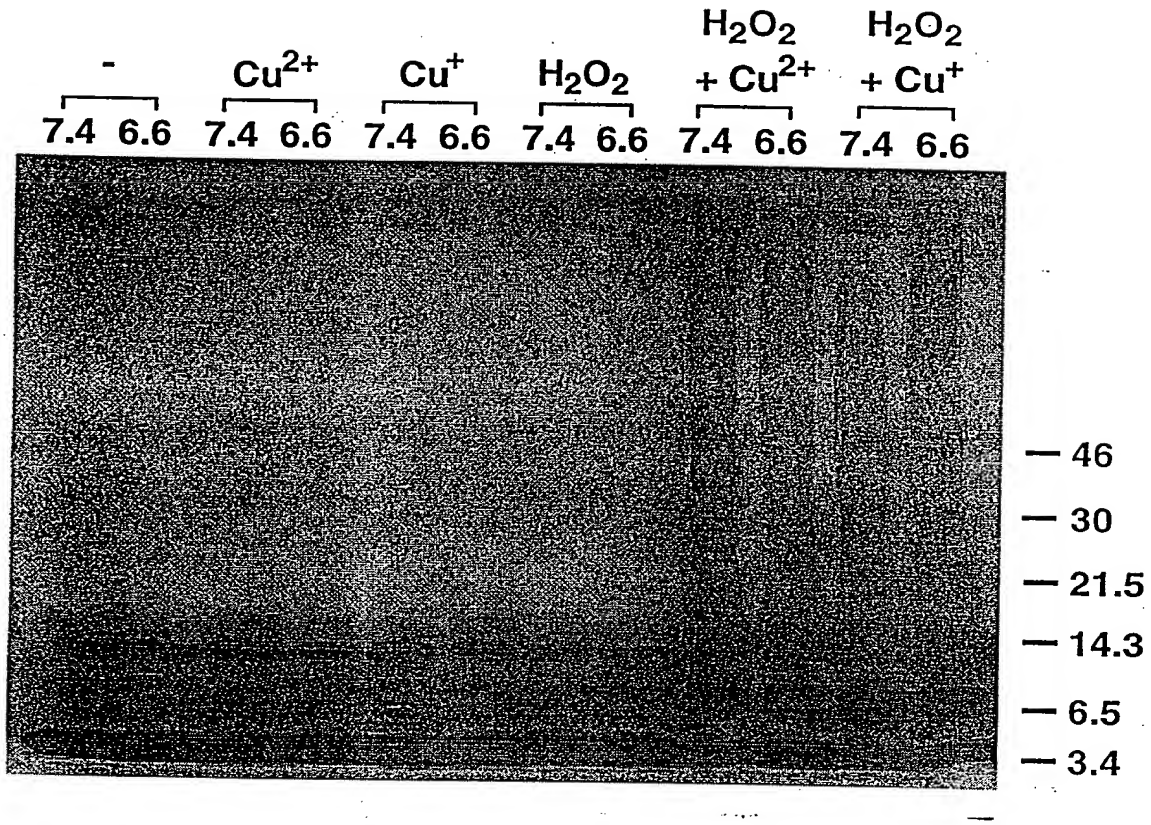

-
Cu^{2+}
Cu^{+}
H_2O_2
H_2O_2 + Cu^{2+}
H_2O_2 + Cu^{+}
7.4 6.6 7.4 6.6 7.4 6.6 7.4 6.6 7.4 6.6 7.4 6.6
46
30
21.5
14.3
6.5
3.4

Fig. 32A

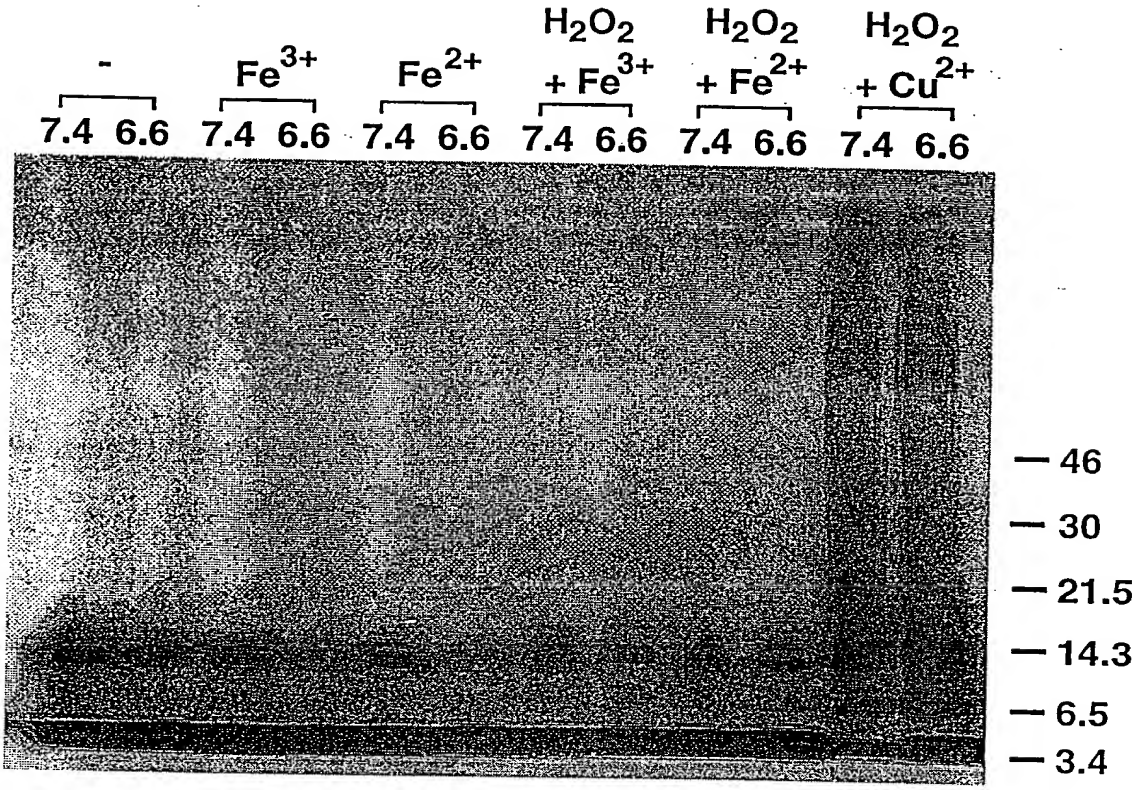

-
Fe3+
Fe2+
H2O2 + Fe3+
H2O2 + Fe2+
H2O2 + Cu2+
7.4 6.6 7.4 6.6 7.4 6.6 7.4 6.6 7.4 6.6 7.4 6.6
46
30
21.5
14.3
6.5
3.4

Fig. 32B

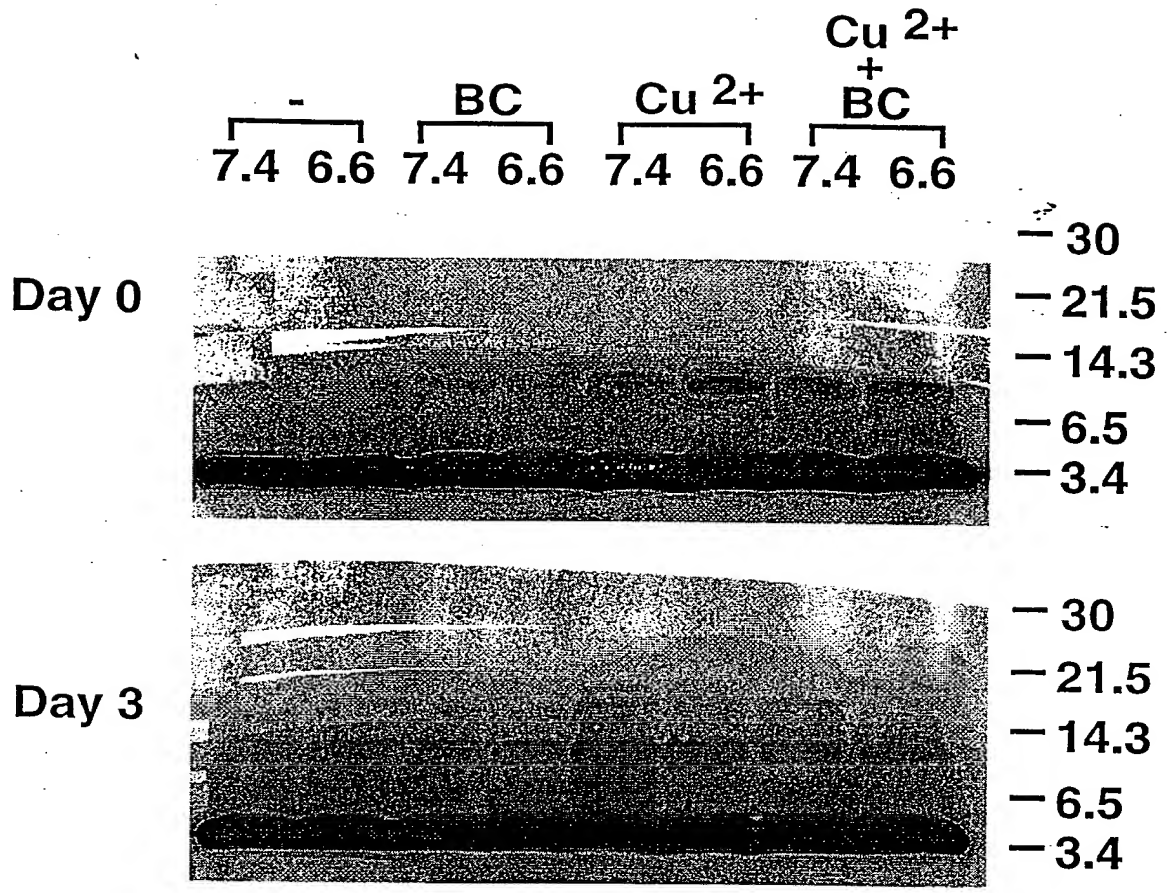

Cu 2+
+
-
BC
Cu 2+
BC
7.4 6.6 7.4 6.6 7.4 6.6 7.4 6.6
Day 0
30
21.5
14.3
6.5
3.4
Day 3
30
21.5
14.3
6.5
3.4

Fig. 32C

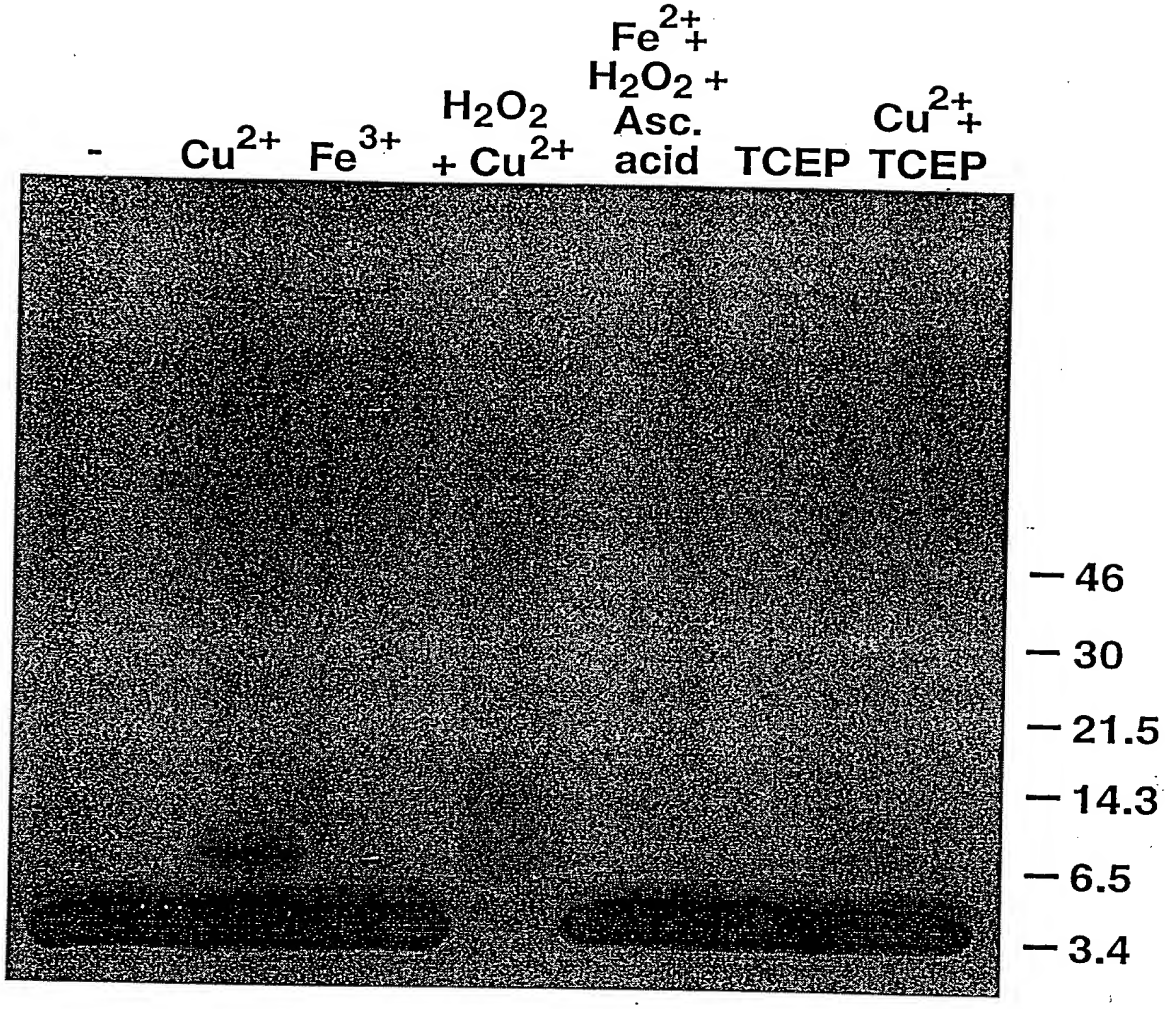

-
Cu^{2+}
Fe^{3+}
H_2O_2 + Cu^{2+}
Fe^{2+} + H_2O_2 + Asc. acid
TCEP
Cu^{2+} + TCEP
46
30
21.5
14.3
6.5
3.4

Fig. 33A

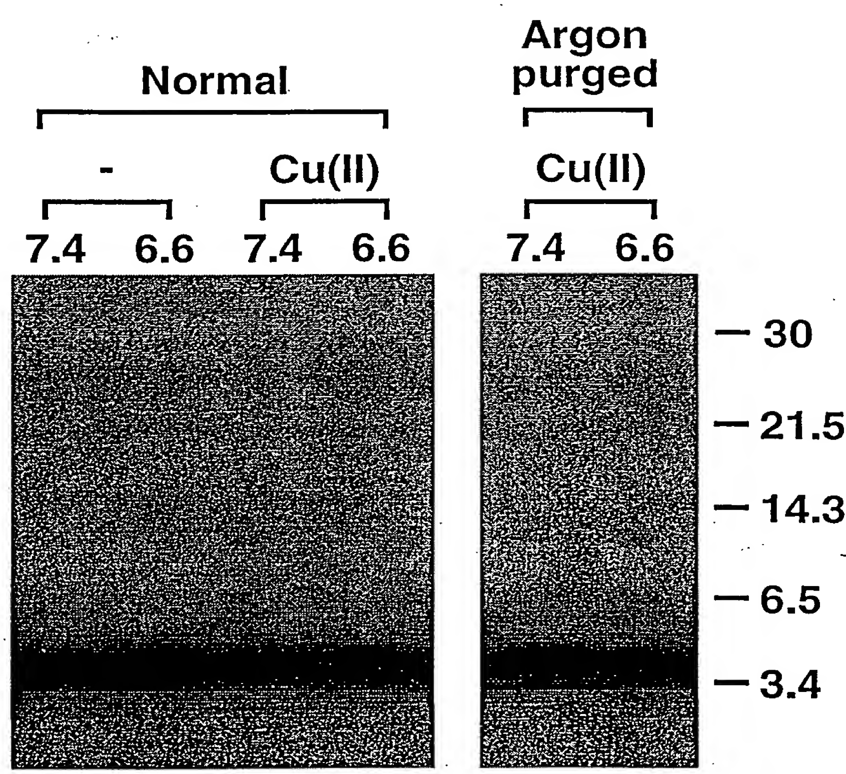
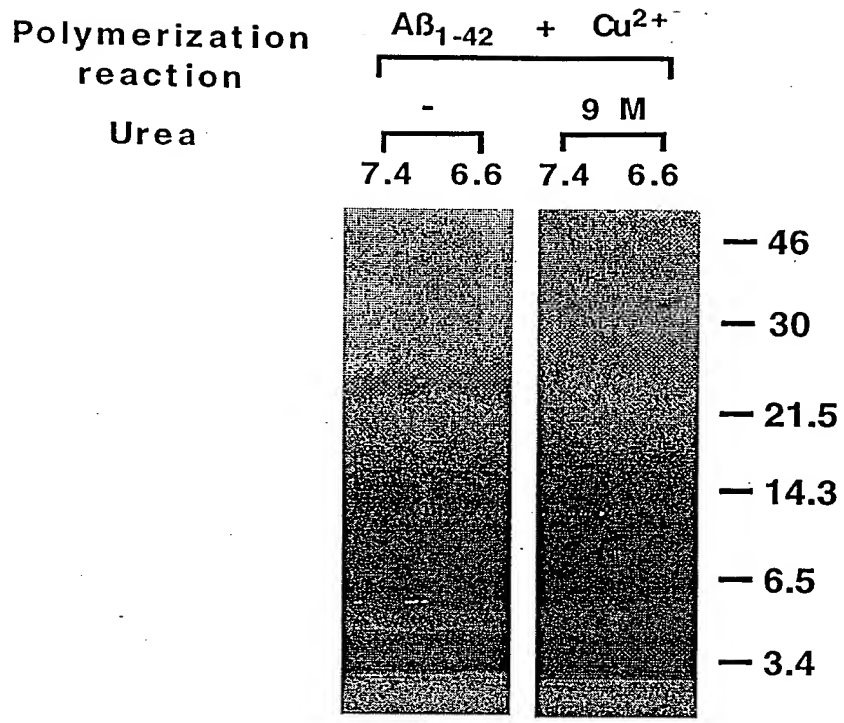


Fig. 33B


Polymerization reaction
Aß1-42 + Cu2+
Urea
-
9 M
7.4 6.6 7.4 6.6
46
30
21.5
14.3
6.5
3.4

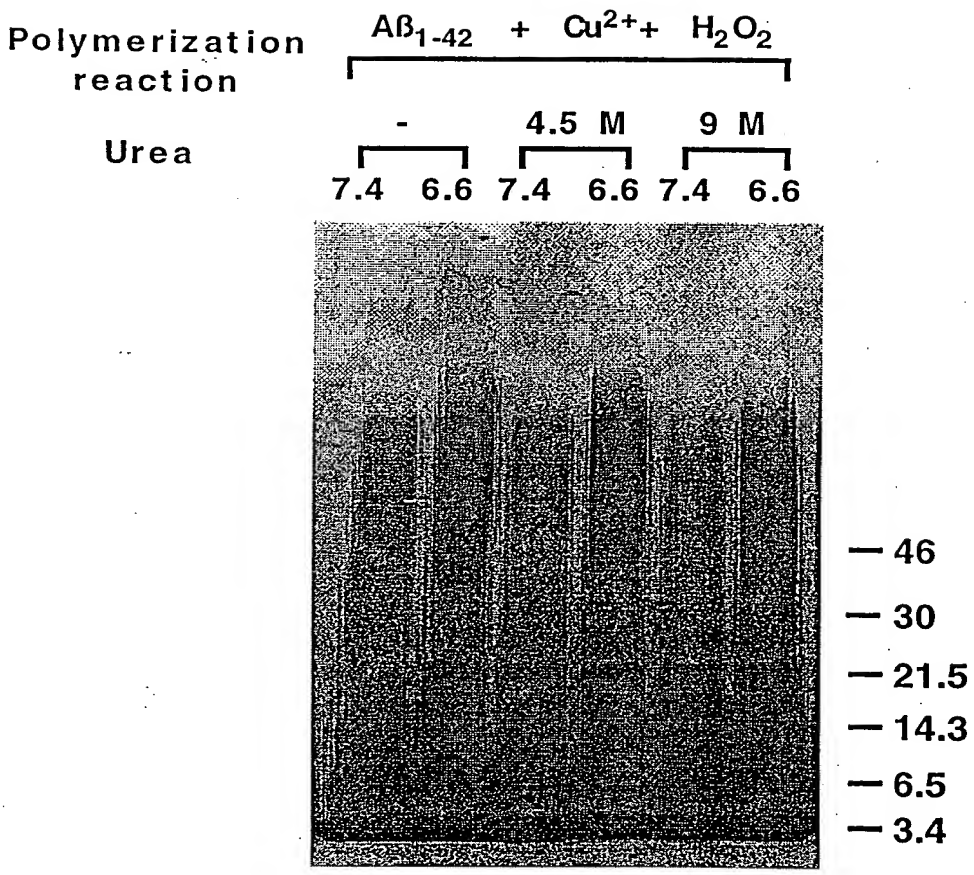

Polymerization reaction
Aß1-42 + Cu2+ + H2O2
Urea
-
4.5 M
9 M
7.4 6.6 7.4 6.6 7.4 6.6
46
30
21.5
14.3
6.5
3.4

Fig. 34A

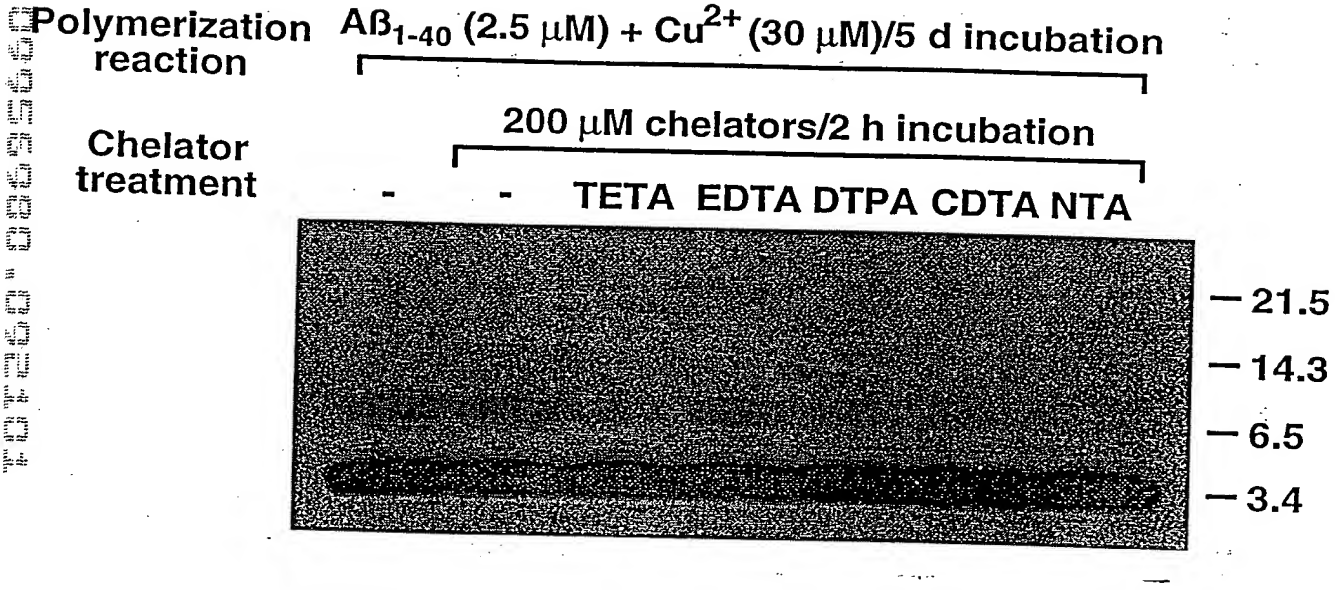

Polymerization reaction
$A\beta_{1-40}$ (2.5 μM) + Cu^{2+} (30 μM)/5 d incubation
200 μM chelators/2 h incubation
Chelator treatment
- - TETA EDTA DTPA CDTA NTA
21.5
14.3
6.5
3.4

Fig. 34B

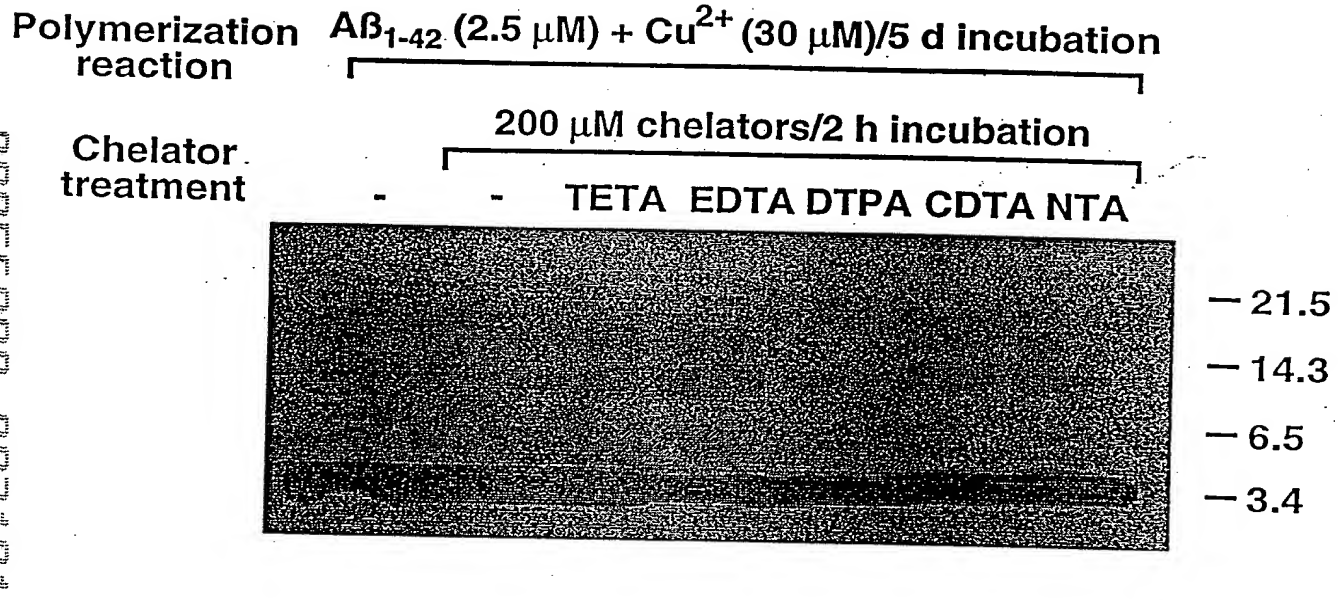

Polymerization reaction
Aß1-42 (2.5 μM) + Cu2+ (30 μM)/5 d incubation
200 μM chelators/2 h incubation
Chelator treatment
- - TETA EDTA DTPA CDTA NTA
21.5
14.3
6.5
3.4

Fig. 34C

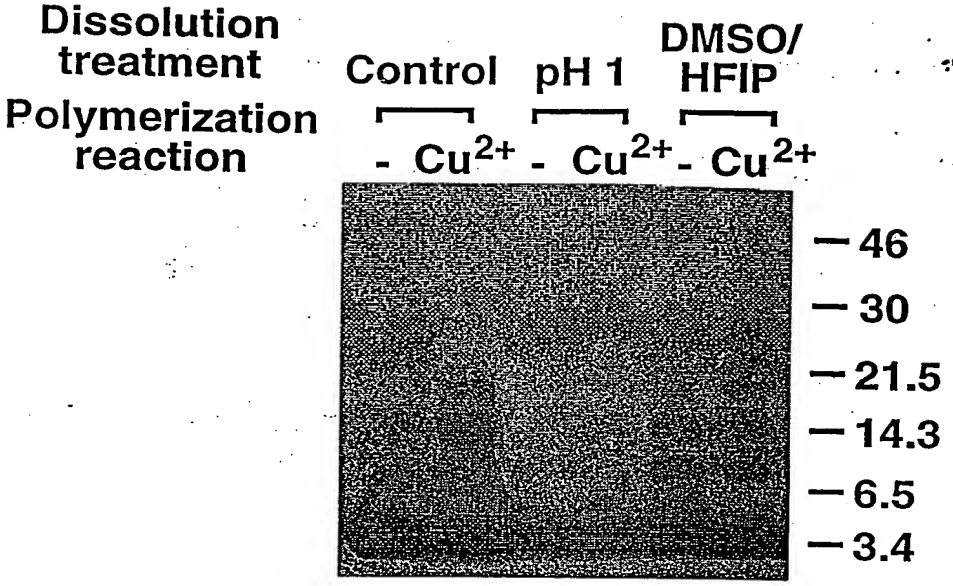

Dissolution treatment
Control
pH 1
DMSO/ HFIP
Polymerization reaction
- Cu2+
- Cu2+
- Cu2+
46
30
21.5
14.3
6.5
3.4

Fig. 34D

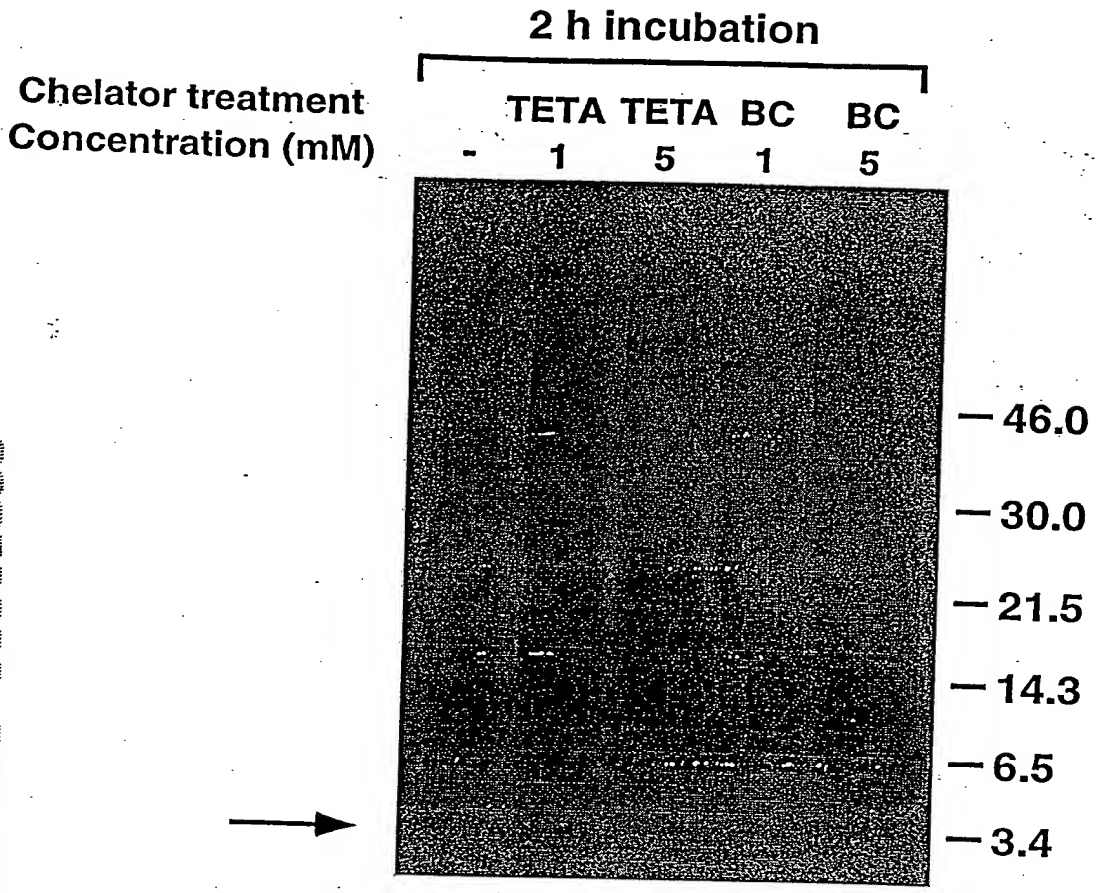

2 h incubation
Chelator treatment
Concentration (mM)
TETA TETA BC BC
- 1 5 1 5
46.0
30.0
21.5
14.3
6.5
3.4

Fig. 34E